UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal period ended December 31, 2018 or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from_____to_____

Commission file number	Registrant, State of Incorporation or Organization, Address of Principal Executive Offices and Telephone Number	IRS Employer Identification No.
1-32853	**DUKE ENERGY CORPORATION** (a Delaware corporation) 550 South Tryon Street Charlotte, NC 28202-1803 704-382-3853	20-2777218

Commission file number	Registrant, State of Incorporation or Organization, Address of Principal Executive Offices, Telephone Number and IRS Employer Identification Number	Commission file number	Registrant, State of Incorporation or Organization, Address of Principal Executive Offices, Telephone Number and IRS Employer Identification Number
1-4928	**DUKE ENERGY CAROLINAS, LLC** (a North Carolina limited liability company) 526 South Church Street Charlotte, North Carolina 28202-1803 704-382-3853 56-0205520	1-3274	**DUKE ENERGY FLORIDA, LLC** (a Florida limited liability company) 299 First Avenue North St. Petersburg, Florida 33701 704-382-3853 59-0247770
1-15929	**PROGRESS ENERGY, INC.** (a North Carolina corporation) 410 South Wilmington Street Raleigh, North Carolina 27601-1748 704-382-3853 56-2155481	1-1232	**DUKE ENERGY OHIO, INC.** (an Ohio corporation) 139 East Fourth Street Cincinnati, Ohio 45202 704-382-3853 31-0240030
1-3382	**DUKE ENERGY PROGRESS, LLC** (a North Carolina limited liability company) 410 South Wilmington Street Raleigh, North Carolina 27601-1748 704-382-3853 56-0165465	1-3543	**DUKE ENERGY INDIANA, LLC** (an Indiana limited liability company) 1000 East Main Street Plainfield, Indiana 46168 704-382-3853 35-0594457
1-6196	**PIEDMONT NATURAL GAS COMPANY, INC.** (a North Carolina corporation) 4720 Piedmont Row Drive Charlotte, North Carolina 28210 704-364-3120 56-0556998		

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Registrant	Title of each class	Name of each exchange on which registered
Duke Energy Corporation (Duke Energy)	Common Stock, $0.001 par value	New York Stock Exchange LLC
Duke Energy	5.125% Junior Subordinated Debentures due January 15, 2073	New York Stock Exchange LLC
Duke Energy	5.625% Junior Subordinated Debentures due September 15, 2078	New York Stock Exchange LLC

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Duke Energy	Yes ☒	No ☐	Duke Energy Florida, LLC (Duke Energy Florida)	Yes ☒	No ☐
Duke Energy Carolinas, LLC (Duke Energy Carolinas)	Yes ☒	No ☐	Duke Energy Ohio, Inc. (Duke Energy Ohio)	Yes ☒	No ☐
Progress Energy, Inc. (Progress Energy)	Yes ☐	No ☒	Duke Energy Indiana, LLC (Duke Energy Indiana)	Yes ☐	No ☒
Duke Energy Progress, LLC (Duke Energy Progress)	Yes ☒	No ☐	Piedmont Natural Gas Company, Inc. (Piedmont)	Yes ☐	No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

Yes ☐ No ☒ (Response applicable to all registrants.)

Indicate by check mark whether the registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrants have submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐ (Only applicable to Duke Energy)

Indicate by check mark whether Duke Energy is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.: Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether each of Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont is a large accelerated filer, accelerated filer, non-accelerated filer, smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.: Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether each of the registrants is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Estimated aggregate market value of the common equity held by nonaffiliates of Duke Energy at June 30, 2018.	$ 56,283,598,357
Number of shares of Common Stock, $0.001 par value, outstanding at January 31, 2019.	727,010,882

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Duke Energy definitive proxy statement for the 2019 Annual Meeting of the Shareholders or an amendment to this Annual Report are incorporated by reference into PART III, Items 10, 11 and 13 hereof.

This combined Form 10-K is filed separately by eight registrants: Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont (collectively the Duke Energy Registrants). Information contained herein relating to any individual registrant is filed by such registrant solely on its own behalf. Each registrant makes no representation as to information relating exclusively to the other registrants.

Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont meet the conditions set forth in General Instructions I(1)(a) and (b) of Form 10-K and are, therefore, filing this Form 10-K with the reduced disclosure format specified in General Instructions I(2) of Form 10-K.

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FORM 10-K FOR THE YEAR ENDED December 31, 2018

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This document includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on management's beliefs and assumptions and can often be identified by terms and phrases that include "anticipate," "believe," "intend," "estimate," "expect," "continue," "should," "could," "may," "plan," "project," "predict," "will," "potential," "forecast," "target," "guidance," "outlook" or other similar terminology. Various factors may cause actual results to be materially different than the suggested outcomes within forward-looking statements; accordingly, there is no assurance that such results will be realized. These factors include, but are not limited to:

- State, federal and foreign legislative and regulatory initiatives, including costs of compliance with existing and future environmental requirements, including those related to climate change, as well as rulings that affect cost and investment recovery or have an impact on rate structures or market prices;
- The extent and timing of costs and liabilities to comply with federal and state laws, regulations and legal requirements related to coal ash remediation, including amounts for required closure of certain ash impoundments, are uncertain and difficult to estimate;
- The ability to recover eligible costs, including amounts associated with coal ash impoundment retirement obligations and costs related to significant weather events, and to earn an adequate return on investment through rate case proceedings and the regulatory process;
- The costs of decommissioning Crystal River Unit 3 and other nuclear facilities could prove to be more extensive than amounts estimated and all costs may not be fully recoverable through the regulatory process;
- Costs and effects of legal and administrative proceedings, settlements, investigations and claims;
- Industrial, commercial and residential growth or decline in service territories or customer bases resulting from sustained downturns of the economy and the economic health of our service territories or variations in customer usage patterns, including energy efficiency efforts and use of alternative energy sources, such as self-generation and distributed generation technologies;
- Federal and state regulations, laws and other efforts designed to promote and expand the use of energy efficiency measures and distributed generation technologies, such as private solar and battery storage, in Duke Energy service territories could result in customers leaving the electric distribution system, excess generation resources as well as stranded costs;
- Advancements in technology;
- Additional competition in electric and natural gas markets and continued industry consolidation;
- The influence of weather and other natural phenomena on operations, including the economic, operational and other effects of severe storms, hurricanes, droughts, earthquakes and tornadoes, including extreme weather associated with climate change;
- The ability to successfully operate electric generating facilities and deliver electricity to customers including direct or indirect effects to the company resulting from an incident that affects the U.S. electric grid or generating resources;
- The ability to obtain the necessary permits and approvals and to complete necessary or desirable pipeline expansion or infrastructure projects in our natural gas business;
- Operational interruptions to our natural gas distribution and transmission activities;
- The availability of adequate interstate pipeline transportation capacity and natural gas supply;
- The impact on facilities and business from a terrorist attack, cybersecurity threats, data security breaches, operational accidents, information technology failures or other catastrophic events, such as fires, explosions, pandemic health events or other similar occurrences;
- The inherent risks associated with the operation of nuclear facilities, including environmental, health, safety, regulatory and financial risks, including the financial stability of third-party service providers;
- The timing and extent of changes in commodity prices and interest rates and the ability to recover such costs through the regulatory process, where appropriate, and their impact on liquidity positions and the value of underlying assets;
- The results of financing efforts, including the ability to obtain financing on favorable terms, which can be affected by various factors, including credit ratings, interest rate fluctuations, compliance with debt covenants and conditions and general market and economic conditions;
- Credit ratings of the Duke Energy Registrants may be different from what is expected;
- Declines in the market prices of equity and fixed-income securities and resultant cash funding requirements for defined benefit pension plans, other post-retirement benefit plans and nuclear decommissioning trust funds;
- Construction and development risks associated with the completion of the Duke Energy Registrants' capital investment projects, including risks related to financing, obtaining and complying with terms of permits, meeting construction budgets and schedules and satisfying operating and environmental performance standards, as well as the ability to recover costs from customers in a timely manner, or at all;
- Changes in rules for regional transmission organizations, including changes in rate designs and new and evolving capacity markets, and risks related to obligations created by the default of other participants;
- The ability to control operation and maintenance costs;
- The level of creditworthiness of counterparties to transactions;
- Employee workforce factors, including the potential inability to attract and retain key personnel;

- The ability of subsidiaries to pay dividends or distributions to Duke Energy Corporation holding company (the Parent);
- The performance of projects undertaken by our nonregulated businesses and the success of efforts to invest in and develop new opportunities;
- The effect of accounting pronouncements issued periodically by accounting standard-setting bodies;
- The impact of U.S. tax legislation to our financial condition, results of operations or cash flows and our credit ratings;
- The impacts from potential impairments of goodwill or equity method investment carrying values; and
- The ability to implement our business strategy, including enhancing existing technology systems.

Additional risks and uncertainties are identified and discussed in the Duke Energy Registrants' reports filed with the SEC and available at the SEC's website at sec.gov. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than described. Forward-looking statements speak only as of the date they are made and the Duke Energy Registrants expressly disclaim an obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Glossary of Terms

The following terms or acronyms used in this Form 10-K are defined below:

Term or Acronym	Definition
2013 Settlement	Revised and Restated Stipulation and Settlement Agreement approved in November 2013 among Duke Energy Florida, the Florida OPC and other customer advocates
the 2015 Plan	Duke Energy Corporation 2015 Long-Term Incentive Plan
2017 Settlement	Second Revised and Restated Settlement Agreement in 2017 among Duke Energy Florida, the Florida OPC and other customer advocates, which replaces and supplants the 2013 Settlement
ACE	Affordable Clean Energy
ACP	Atlantic Coast Pipeline, LLC, a limited liability company owned by Dominion, Duke Energy and Southern Company Gas
ACP pipeline	The approximately 600-mile proposed interstate natural gas pipeline
AFUDC	Allowance for funds used during construction
AFS	Available for Sale
the Agents	Wells Fargo Securities, LLC, Citigroup Global Market Inc., J.P. Morgan Securities, LLC
ALJ	Administrative Law Judge
AMI	Advanced Metering Infrastructure
AMT	Alternative Minimum Tax
AOCI	Accumulated Other Comprehensive Income (Loss)
ARO	Asset Retirement Obligation
ASR	Accelerated Stock Repurchase Program
ATM	At-the-market
Audit Committee	Audit Committee of the Board of Directors
Barclays	Barclays Capital Inc.
BCWF	Benton County Wind Farm, LLC
Beckjord	Beckjord Generating Station
Belews Creek	Belews Creek Steam Station
Bison	Bison Insurance Company Limited
Board of Directors	Duke Energy Board of Directors
Brunswick	Brunswick Nuclear Plant
CAA	Clean Air Act
Cardinal	Cardinal Pipeline Company, LLC
Catawba	Catawba Nuclear Station
CC	Combined Cycle
CCR	Coal Combustion Residuals
CCS	Carbon Capture and Storage
CECPCN	Certificate of Environmental Compatibility and Public Convenience and Necessity
CEO	Chief Executive Officer
CertainTeed	CertainTeed Gypsum NC, Inc.
Cinergy	Cinergy Corp. (collectively with its subsidiaries)
Citrus County CC	Citrus County Combined Cycle Facility
CO_2	Carbon Dioxide
Coal Ash Act	North Carolina Coal Ash Management Act of 2014
COL	Combined Operating License
the Company	Duke Energy Corporation and its subsidiaries

Constitution	Constitution Pipeline Company, LLC
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CPCN	Certificate of Public Convenience and Necessity
CPP	Clean Power Plan
CRC	Cinergy Receivables Company LLC
Crystal River Unit 3	Crystal River Unit 3 Nuclear Plant
CSA	Comprehensive Site Assessment
CSAPR	Cross-State Air Pollution Rule
CT	Combustion Turbine
CTG	China Three Gorges (Luxembourg) Energy S.à.r.l.
CWA	Clean Water Act
DATC	Duke-American Transmission Co.
D.C. Circuit Court	U.S. Court of Appeals for the District of Columbia
DCI	Distribution Capital Investment
DEFPF	Duke Energy Florida Project Finance, LLC
DEFR	Duke Energy Florida Receivables, LLC
Deloitte	Deloitte & Touche LLP, and the member firms of Deloitte Touche Tohmatsu and their respective affiliates
DEPR	Duke Energy Progress Receivables, LLC
DERF	Duke Energy Receivables Finance Company, LLC
DHHS	North Carolina Department of Health and Human Services
Directors' Savings Plan	Duke Energy Corporation Directors' Savings Plan
DOE	U.S. Department of Energy
DOJ	Department of Justice
Dominion	Dominion Resources
DRIP	Dividend Reinvestment Program
DSM	Demand Side Management
Duke Energy	Duke Energy Corporation (collectively with its subsidiaries)
Duke Energy Carolinas	Duke Energy Carolinas, LLC
Duke Energy Florida	Duke Energy Florida, LLC
Duke Energy Indiana	Duke Energy Indiana, LLC
Duke Energy Kentucky	Duke Energy Kentucky, Inc.
Duke Energy Ohio	Duke Energy Ohio, Inc.
Duke Energy Progress	Duke Energy Progress, LLC
Duke Energy Registrants	Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont
East Bend	East Bend Generating Station
the EDA	Equity Distribution Agreement
EE	Energy efficiency
EGU	Electric Generating Units
ELG	Effluent Limitations Guidelines
EPA	U.S. Environmental Protection Agency
EPC	Engineering, Procurement and Construction agreement
EPS	Earnings Per Share
ESP	Electric Security Plan

ETR	Effective tax rate
Exchange Act	Securities Exchange Act of 1934
Executive Savings Plan	Duke Energy Corporation Executive Savings Plan
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
FES	FirstEnergy Solutions Corp.
Fitch	Fitch Ratings, Inc.
FirstEnergy	FirstEnergy Corp.
Florida OPC	Florida Office of Public Counsel
Form S-3	Registration statement
FP&L	Florida Power & Light Company
FPSC	Florida Public Service Commission
FTR	Financial transmission rights
Fluor	Fluor Enterprises, Inc.
FV-NI	Fair value through net income
GAAP	Generally Accepted Accounting Principles in the United States
GAAP Reported Earnings	Net Income Attributable to Duke Energy Corporation
GAAP Reported EPS	Diluted EPS Attributable to Duke Energy Corporation common stockholders
GHG	Greenhouse Gas
GWh	Gigawatt-hours
Hardy Storage	Hardy Storage Company, LLC
Harris	Shearon Harris Nuclear Plant
Hines	Hines Energy Complex
I Squared	ISQ Enerlam Aggregator, L.P. and Enerlam (UK) Holding Ltd.
IBNR	Incurred but not yet reported
ICPA	Inter-Company Power Agreement
IGCC	Integrated Gasification Combined Cycle
IMR	Integrity Management Rider
International Disposal Group	Duke Energy's international business, excluding National Methanol Company
IRP	Integrated Resource Plans
IRS	Internal Revenue Service
ISFSI	Independent Spent Fuel Storage Installation
ISO	Independent System Operator
ITC	Investment Tax Credit
IURC	Indiana Utility Regulatory Commission
Investment Trusts	Grantor trusts of Duke Energy Progress, Duke Energy Florida and Duke Energy Indiana
JDA	Joint Dispatch Agreement
KO Transmission	KO Transmission Company
KPSC	Kentucky Public Service Commission
kV	Kilovolt
LDC	Local Distribution Company
Lee Nuclear Station	William States Lee III Nuclear Station
Levy	Duke Energy Florida’s proposed nuclear plant in Levy County, Florida

LIBOR	London Interbank Offered Rate
LLC	Limited Liability Company
Master Trust	Duke Energy Corporation Master Retirement Trust
McGuire	McGuire Nuclear Station
Merger Agreement	The Agreement and Plan of Merger between Duke Energy and Piedmont
MGP	Manufactured gas plant
Midwest Generation Disposal Group	Duke Energy Ohio's nonregulated Midwest generation business and Duke Energy Retail Sales, LLC
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	Million British Thermal Unit
MPP	Money Purchase Pension
Moody's	Moody's Investors Service, Inc.
MTBE	Methyl tertiary butyl ether
MTEP	MISO Transmission Expansion Planning
MW	Megawatt
MVP	Multi Value Projects
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NAV	Net asset value
NAW	North Allegheny Wind, LLC
NCDEQ	North Carolina Department of Environmental Quality (formerly the North Carolina Department of Environment and Natural Resources)
NCEMC	North Carolina Electric Membership Corporation
NCEMPA	North Carolina Eastern Municipal Power Agency
NCRS	Nuclear Power Plant Cost Recovery Statutes
NCUC	North Carolina Utilities Commission
NDTF	Nuclear decommissioning trust funds
NEIL	Nuclear Electric Insurance Limited
New Source Review	New Source Review (NSR) is a CAA program that requires industrial facilities to install modern pollution control equipment when they are built or when making a change that increases emissions significantly
NYSDEC	New York State Department of Environmental Conservation
NMC	National Methanol Company
NOL	Net operating loss
NOV	Notice of violation
NO_x	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NPNS	Normal purchase/normal sale
NPRM	Notice of Proposed Rulemaking
NRC	U.S. Nuclear Regulatory Commission
NSR	New Source Review
NWPA	Nuclear Waste Policy Act of 1982 (as amended)
NYSE	New York Stock Exchange
Oconee	Oconee Nuclear Station
OMB	Office of Management and Budget

OPEB	Other Post-Retirement Benefit Obligations
ORS	Office of Regulatory Staff
Osprey acquisition	Duke Energy Florida's purchase of a Calpine Corporation's 599-MW combined-cycle natural gas plant in Auburndale, Florida
OTTI	Other-than-temporary impairment
OVEC	Ohio Valley Electric Corporation
the Parent	Duke Energy Corporation holding company
PCAOB	Public Company Accounting Oversight Board
PGA	Purchased Gas Adjustments
Philadelphia Utility Index	Philadelphia Sector Index
PHMSA	Pipeline and Hazardous Materials Safety Administration
Piedmont	Piedmont Natural Gas Company, Inc.
Piedmont Pension Assets	Qualified pension plan assets associated with the Retirement Plan of Piedmont
Piedmont Term Loan	Term loan facility with commitments totaling $350M entered in June 2017
Pine Needle	Pine Needle LNG Company, LLC
Pioneer	Pioneer Transmission, LLC
PJM	PJM Interconnection, LLC
PMPA	Piedmont Municipal Power Agency
PPA	Purchase Power Agreement
Progress Energy	Progress Energy, Inc.
PSCSC	Public Service Commission of South Carolina
PTC	Production Tax Credits
PUCO	Public Utilities Commission of Ohio
PUCO Order	Order issued by PUCO approving a settlement of Duke Energy Ohio’s natural gas base rate case and authorizing the recovery of certain MGP costs
PURPA	Public Utility Regulatory Policies Act of 1978
QF	Qualifying Facility
RCRA	Resource Conservation and Recovery Act
REC	Renewable Energy Certificate
REC Solar	REC Solar Corp.
Relative TSR	TSR of Duke Energy stock relative to a predefined peer group
Robinson	Robinson Nuclear Plant
RRBA	Roanoke River Basin Association
RSU	Restricted Stock Unit
RTO	Regional Transmission Organization
SAB	Staff Accounting Bulletin
Sabal Trail	Sabal Trail Transmission, LLC
Sabal Trail pipeline	Sabal Trail Natural Gas Pipeline
SAFSTOR	A method of decommissioning in which a nuclear facility is placed and maintained in a condition that allows the facility to be safely stored and subsequently decontaminated to levels that permit release for unrestricted use
SEC	Securities and Exchange Commission
SEIS	Supplemental Environmental Impact Statement
SELC	Southern Environmental Law Center
Segment Income	Income from continuing operations net of income attributable to noncontrolling interests

SO_2	Sulfur dioxide
SouthStar	SouthStar Energy Services, LLC
Spectra Capital	Spectra Energy Capital, LLC
S&P	Standard & Poor's Rating Services
S&P 500	Standard & Poor's 500 Stock Index
SSO	Standard Service Offer
State utility commissions	NCUC, PSCSC, FPSC, PUCO, IURC, KPSC and TPUC (Collectively)
State electric utility commissions	NCUC, PSCSC, FPSC, PUCO, IURC and KPSC (Collectively)
State gas utility commissions	NCUC, PSCSC, PUCO, TPUC and KPSC (Collectively)
Subsidiary Registrants	Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont
Sutton	L.V. Sutton Combined Cycle Plant
the Tax Act	Tax Cuts and Jobs Act
TDSIC	Transmission, Distribution and Storage System Improvement Charge
Three Year Revolver	Duke Energy (Parent) $1.0 billion revolving credit facility
TPUC	Tennessee Public Utility Commission
TSCA	Toxic Substances Control Act
TSR	Total shareholder return
U.S.	United States
U.S. Court of Appeals	U.S. Court of Appeals for the Second Circuit
VEBA	Voluntary Employees' Beneficiary Association
VIE	Variable Interest Entity
WACC	Weighted Average Cost of Capital
Westinghouse	Westinghouse Electric Company
WNA	Weather normalization adjustment
W.S. Lee CC	William States Lee Combined Cycle Facility
WVPA	Wabash Valley Power Association, Inc.

ITEM 1. BUSINESS

DUKE ENERGY

General

Duke Energy was incorporated on May 3, 2005, and is an energy company headquartered in Charlotte, North Carolina, subject to regulation by the FERC and other regulatory agencies listed below. Duke Energy operates in the U.S. primarily through its direct and indirect subsidiaries. Certain Duke Energy subsidiaries are also subsidiary registrants, including Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont. When discussing Duke Energy's consolidated financial information, it necessarily includes the results of its separate Subsidiary Registrants, which along with Duke Energy, are collectively referred to as the Duke Energy Registrants.

Piedmont, a North Carolina corporation, is an energy services company whose principal business is the distribution of natural gas to over 1 million residential, commercial, industrial and power generation customers in portions of North Carolina, South Carolina and Tennessee, including customers served by municipalities who are Piedmont's sales for resale customers. In October 2016, Duke Energy completed the acquisition of Piedmont. Piedmont's earnings and cash flows are only included in Duke Energy's consolidated results subsequent to the acquisition date. See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information regarding the acquisition.

In December 2016, Duke Energy completed an exit of the Latin American market to focus on its domestic regulated business, which was further bolstered by the acquisition of Piedmont. The sale of the International Energy business segment, excluding an equity method investment in NMC, was completed through two transactions including a sale of assets in Brazil to CTG and a sale of Duke Energy's remaining Latin American assets in Peru, Chile, Ecuador, Guatemala, El Salvador and Argentina to I Squared (collectively, the International Disposal Group). See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information on the sale of International Energy.

The Duke Energy Registrants electronically file reports with the SEC, including Annual Reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to such reports.

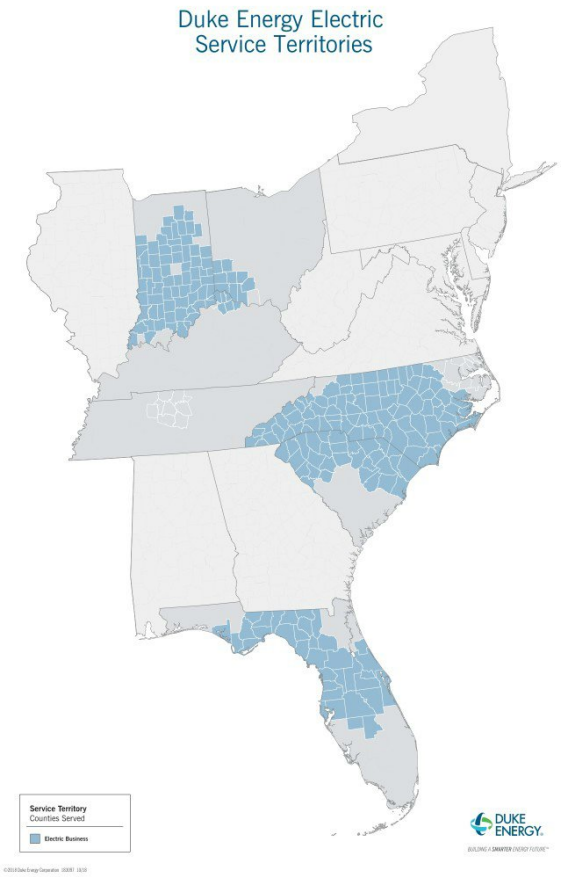
The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at sec.gov. Additionally, information about the Duke Energy Registrants, including reports filed with the SEC, is available through Duke Energy's website at duke-energy.com. Such reports are accessible at no charge and are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC.

Business Segments

Duke Energy's segment structure includes three reportable business segments: Electric Utilities and Infrastructure, Gas Utilities and Infrastructure and Commercial Renewables. The remainder of Duke Energy's operations is presented as Other. Duke Energy's chief operating decision-maker routinely reviews financial information about each of these business segments in deciding how to allocate resources and evaluate the performance of the business. For additional information on each of these business segments, including financial and geographic information, see Note 3 to the Consolidated Financial Statements, "Business Segments." The following sections describe the business and operations of each of Duke Energy's business segments, as well as Other.

ELECTRIC UTILITIES AND INFRASTRUCTURE

Electric Utilities and Infrastructure conducts operations primarily through the regulated public utilities of Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Indiana and Duke Energy Ohio. Electric Utilities and Infrastructure provides retail electric service through the generation, transmission, distribution and sale of electricity to approximately 7.7 million customers within the Southeast and Midwest regions of the U.S. The service territory is approximately 95,000 square miles across six states with a total estimated population of 24 million people. The operations include electricity sold wholesale to municipalities, electric cooperative utilities and other load-serving entities. Electric Utilities and Infrastructure is also a joint owner in certain electric transmission projects. Electric Utilities and Infrastructure has a 50 percent ownership interest in DATC, a partnership with American Transmission Company, formed to design, build and operate transmission infrastructure. DATC owns 72 percent of the transmission service rights to Path 15, an 84-mile transmission line in central California. Electric Utilities and Infrastructure also has a 50 percent ownership interest in Pioneer Transmission, LLC, which builds, owns and operates electric transmission facilities in North America. The following map shows the service territory for Electric Utilities and Infrastructure as of December 31, 2018.



The electric operations and investments in projects are subject to the rules and regulations of the FERC, the NRC, the NCUC, the PSCSC, the FPSC, the IURC, the PUCO and the KPSC.

The following table represents the distribution of billed sales by customer class for the year ended December 31, 2018.

	Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Residential	32%	27%	50%	37%	28%
General service	32%	23%	37%	38%	25%
Industrial	24%	15%	7%	23%	31%
Total retail sales	88%	65%	94%	98%	84%
Wholesale and other sales	12%	35%	6%	2%	16%
Total sales	100%	100%	100%	100%	100%

The number of residential and general service customers within the Electric Utilities and Infrastructure service territory is expected to increase over time. While economic conditions within the service territory remain strong, sales growth continues to be influenced by adoption of energy efficiencies and self-generation. Residential sales for 2018 compared to 2017 saw relatively strong growth despite the impact from increasing amounts of energy efficiency. However, the continued adoption of more efficient housing and appliances is expected to have a negative impact on average usage per residential customer over time.

Seasonality and the Impact of Weather

Revenues and costs are influenced by seasonal weather patterns. Peak sales of electricity occur during the summer and winter months, which results in higher revenue and cash flows during these periods. By contrast, lower sales of electricity occur during the spring and fall, allowing for scheduled plant maintenance. Residential and general service customers are more impacted by weather than industrial customers. Estimated weather impacts are based on actual current period weather compared to normal weather conditions. Normal weather conditions are defined as the long-term average of actual historical weather conditions.

The estimated impact of weather on earnings is based on the temperature variances from a normal condition and customers' historic usage patterns. The methodology used to estimate the impact of weather does not consider all variables that may impact customer response to weather conditions such as humidity in the summer or wind chill in the winter. The precision of this estimate may also be impacted by applying long-term weather trends to shorter-term periods.

Heating-degree days measure the variation in weather based on the extent the average daily temperature falls below a base temperature. Cooling-degree days measure the variation in weather based on the extent the average daily temperature rises above the base temperature. Each degree of temperature below the base temperature counts as one heating-degree day and each degree of temperature above the base temperature counts as one cooling-degree day.

Competition

Retail

Electric Utilities and Infrastructure's businesses operate as the sole supplier of electricity within their service territories, with the exception of Ohio, which has a competitive electricity supply market for generation service. Electric Utilities and Infrastructure owns and operates facilities necessary to transmit, distribute and generate electricity. Services are priced by state commission approved rates designed to include the costs of providing these services and a reasonable return on invested capital. This regulatory policy is intended to provide safe and reliable electricity at fair prices.

In Ohio, Electric Utilities and Infrastructure conducts competitive auctions for electricity supply. The cost of energy purchased through these auctions is recovered from retail customers. Electric Utilities and Infrastructure earns retail margin in Ohio on the transmission and distribution of electricity, but not on the cost of the underlying energy.

Competition in the regulated electric distribution business is primarily from the development and deployment of alternative energy sources including on-site generation from industrial customers and distributed generation, such as private solar, at residential, general service and/or industrial customer sites.

Wholesale

Duke Energy competes with other utilities and merchant generators for bulk power sales, sales to municipalities and cooperatives and wholesale transactions under primarily cost-based contracts approved by FERC. The principal factors in competing for these sales are availability of capacity and power, reliability of service and price. Prices are influenced primarily by market conditions and fuel costs.

Increased competition in the wholesale electric utility industry and the availability of transmission access could affect Electric Utilities and Infrastructure's load forecasts, plans for power supply and wholesale energy sales and related revenues. Wholesale energy sales will be impacted by the extent to which additional generation is available to sell to the wholesale market and the ability of Electric Utilities and Infrastructure to attract new customers and to retain existing customers.

Energy Capacity and Resources

Electric Utilities and Infrastructure owns approximately 50,880 MW of generation capacity. For additional information on owned generation facilities, see Item 2, "Properties."

Energy and capacity are also supplied through contracts with other generators and purchased on the open market. Factors that could cause Electric Utilities and Infrastructure to purchase power for its customers may include, but are not limited to, generating plant outages, extreme weather conditions, generation reliability, demand growth and price. Electric Utilities and Infrastructure has interconnections and arrangements with its neighboring utilities to facilitate planning, emergency assistance, sale and purchase of capacity and energy and reliability of power supply.

Electric Utilities and Infrastructure's generation portfolio is a balanced mix of energy resources having different operating characteristics and fuel sources designed to provide energy at the lowest possible cost to meet its obligation to serve retail customers. All options, including owned generation resources and purchased power opportunities, are continually evaluated on a real-time basis to select and dispatch the lowest-cost resources available to meet system load requirements.

Sources of Electricity

Electric Utilities and Infrastructure relies principally on coal, nuclear fuel and natural gas for its generation of electricity. The following table lists sources of electricity and fuel costs for the three years ended December 31, 2018.

	Generation by Source			Cost of Delivered Fuel per Net Kilowatt-hour Generated (Cents)		
	2018	**2017**	**2016**	**2018**	**2017**	**2016**
Coal[(a)]	**24.4%**	27.4%	27.1%	**2.82**	2.72	3.07
Nuclear[(a)]	**26.0%**	27.8%	27.4%	**0.50**	0.69	0.66
Natural gas and oil[(a)]	**26.2%**	23.6%	22.9%	**3.57**	2.85	3.07
All fuels (cost-based on weighted average)[(a)]	**76.6%**	78.8%	77.4%	**2.29**	2.04	2.22
Hydroelectric and solar[(b)]	**1.3%**	0.7%	0.7%			
Total generation	**77.9%**	79.5%	78.1%			
Purchased power and net interchange	**22.1%**	20.5%	21.9%			
Total sources of energy	**100.0%**	100.0%	100.0%			

(a) Statistics related to all fuels reflect Electric Utilities and Infrastructure's ownership interest in jointly owned generation facilities.
(b) Generating figures are net of output required to replenish pumped storage facilities during off-peak periods.

Coal

Electric Utilities and Infrastructure meets its coal demand through a portfolio of long-term purchase contracts and short-term spot market purchase agreements. Large amounts of coal are purchased under long-term contracts with mining operators who mine both underground and at the surface. Electric Utilities and Infrastructure uses spot market purchases to meet coal requirements not met by long-term contracts. Expiration dates for its long-term contracts, which have various price adjustment provisions and market reopeners, range from 2019 to 2021 for Duke Energy Carolinas, Duke Energy Progress and Duke Energy Ohio, 2019 to 2020 for Duke Energy Florida and 2019 to 2025 for Duke Energy Indiana. Electric Utilities and Infrastructure expects to renew these contracts or enter into similar contracts with other suppliers as existing contracts expire, though prices will fluctuate over time as coal markets change. Electric Utilities and Infrastructure has an adequate supply of coal under contract to meet its hedging guidelines regarding projected future consumption. As a result of volatility in natural gas prices and the associated impacts on coal-fired dispatch within the generation fleet, coal inventories will continue to fluctuate. Electric Utilities and Infrastructure continues to actively manage its portfolio and has worked with suppliers to obtain increased flexibility in its coal contracts.

Coal purchased for the Carolinas is primarily produced from mines in Central Appalachia, Northern Appalachia and the Illinois Basin. Coal purchased for Florida is primarily produced from mines in Colorado and the Illinois Basin. Coal purchased for Kentucky is produced from mines along the Ohio River in Illinois, Ohio, West Virginia and Pennsylvania. Coal purchased for Indiana is primarily produced in Indiana and Illinois. The current average sulfur content of coal purchased by Electric Utilities and Infrastructure is between 1.5 percent and 2 percent for Duke Energy Carolinas and Duke Energy Progress, between 1 percent and 3 percent for Duke Energy Florida, between 3 percent and 3.5 percent for Duke Energy Ohio and between 2.5 percent and 3 percent for Duke Energy Indiana. Electric Utilities and Infrastructure's environmental controls, in combination with the use of SO_2 emission allowances, enable Electric Utilities and Infrastructure to satisfy current SO_2 emission limitations for its existing facilities.

Nuclear

The industrial processes for producing nuclear generating fuel generally involve the mining and milling of uranium ore to produce uranium concentrates and services to convert, enrich and fabricate fuel assemblies.

Electric Utilities and Infrastructure has contracted for uranium materials and services to fuel its nuclear reactors. Uranium concentrates, conversion services and enrichment services are primarily met through a diversified portfolio of long-term supply contracts. The contracts are diversified by supplier, country of origin and pricing. Electric Utilities and Infrastructure staggers its contracting so that its portfolio of long-term contracts covers the majority of its fuel requirements in the near term and decreasing portions of its fuel requirements over time thereafter. Near-term requirements not met by long-term supply contracts have been and are expected to be fulfilled with spot market purchases. Due to the technical complexities of changing suppliers of fuel fabrication services, Electric Utilities and Infrastructure generally sources these services to a single domestic supplier on a plant-by-plant basis using multiyear contracts.

Electric Utilities and Infrastructure has entered into fuel contracts that cover 100 percent of its uranium concentrates, conversion services and enrichment services requirements through at least 2019 and cover fabrication services requirements for these plants through at least 2027. For future requirements not already covered under long-term contracts, Electric Utilities and Infrastructure believes it will be able to renew contracts as they expire or enter into similar contractual arrangements with other suppliers of nuclear fuel materials and services.

Natural Gas and Fuel Oil

Natural gas and fuel oil supply, transportation and storage for Electric Utilities and Infrastructure’s generation fleet is purchased under standard industry agreements from various suppliers, including Piedmont. Natural gas supply agreements typically provide for a percentage of forecasted burns being procured over time, with varied expiration dates. Electric Utilities and Infrastructure believes it has access to an adequate supply of natural gas and fuel oil for the reasonably foreseeable future.

Electric Utilities and Infrastructure has certain dual-fuel generating facilities that can operate utilizing both natural gas and fuel oil. The cost of Electric Utilities and Infrastructure's natural gas and fuel oil is fixed price or determined by published market prices as reported in certain industry publications, plus any transportation and freight costs. Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida and Duke Energy Indiana use derivative instruments to manage a portion of their exposure to price fluctuations for natural gas. For Duke Energy Florida, there is currently an agreed to moratorium on future hedging with the FPSC.

Electric Utilities and Infrastructure has firm interstate and intrastate natural gas transportation agreements and storage agreements in place to support generation needed for load requirements. Electric Utilities and Infrastructure may purchase additional shorter-term natural gas transportation and utilize natural gas interruptible transportation agreements to support generation needed for load requirements. The Electric Utilities and Infrastructure natural gas plants are served by various supply zones and multiple pipelines.

Purchased Power

Electric Utilities and Infrastructure purchases a portion of its capacity and system requirements through purchase obligations, leases and purchase capacity contracts. Electric Utilities and Infrastructure believes it can obtain adequate purchased power capacity to meet future system load needs. However, during periods of high demand, the price and availability of purchased power may be significantly affected.

The following table summarizes purchased power for the previous three years:

	2018	2017	2016
Purchase obligations and leases (in millions of MWh)[(a)]	**21.3**	17.7	18.0
Purchase capacity under contract (in MW)[(b)]	**4,025**	4,028	4,588

(a) Represents approximately 7 percent of total system requirements for 2018, 2017 and 2016.
(b) These agreements include approximately 412 MW of firm capacity under contract by Duke Energy Florida with QFs.

Inventory

Electric Utilities and Infrastructure must maintain an adequate stock of fuel and materials and supplies in order to ensure continuous operation of generating facilities and reliable delivery to customers. As of December 31, 2018, the inventory balance for Electric Utilities and Infrastructure was approximately $2.9 billion. For additional information on inventory, see Note 1 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies."

Ash Basin Management

During 2015, EPA regulations were enacted related to the management of CCR from power plants. These regulations classify CCR as nonhazardous waste under the RCRA and apply to electric generating sites with new and existing landfills, new and existing surface impoundments, structural fills and CCR piles, and establishes requirements regarding landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring, protection and remedial procedures and other operational and reporting procedures for the disposal and management of CCR. In addition to the federal regulations, CCR landfills and surface impoundments (ash basins or impoundments) will continue to be independently regulated by existing state laws, regulations and permits, including the Coal Ash Act in North Carolina.

Electric Utilities and Infrastructure has and will periodically submit to applicable authorities required site-specific coal ash impoundment remediation or closure plans. These plans and all associated permits must be approved before any work can begin. Closure activities began in 2015 at the four sites specified as high priority by the Coal Ash Act and at the W.S. Lee Steam Station site in South Carolina in connection with other legal requirements. Excavation at these sites involves movement of CCR materials to off-site locations for use as structural fill, to appropriate engineered off-site or on-site lined landfills or conversion of the ash for beneficial use. At other sites, preliminary planning and closure methods have been studied and factored into the estimated retirement and management costs. The Coal Ash Act requires CCR surface impoundments in North Carolina to be closed, with the closure method and timing based on a risk ranking classification determined by legislation or state regulators. Additionally, the RCRA required closure timing depends upon meeting or continuing to meet certain criteria.

The Coal Ash Act leaves the decision on cost recovery determinations related to closure of coal ash surface impoundments to the normal ratemaking processes before utility regulatory commissions. Duke Energy Carolinas and Duke Energy Progress have included compliance costs associated with the EPA CCR rule and the Coal Ash Act in their respective rate case filings. During 2017, Duke Energy Carolinas' and Duke Energy Progress' wholesale contracts were amended to include the recovery of expenditures related to asset retirement obligations for the closure of coal ash basins. The amended contracts have retail disallowance parity or provisions limiting challenges to CCR cost recovery actions at FERC. FERC approved the amended wholesale rate schedules in 2017. For additional information on the ash basins and recovery, see Item 7, "Other Matters" and Notes 4, 5 and 9 to the Consolidated Financial Statements, "Regulatory Matters," "Commitments and Contingencies" and "Asset Retirement Obligations," respectively.

Nuclear Matters

Duke Energy owns, wholly or partially, 11 operating nuclear reactors located at six operating stations. The Crystal River Unit 3 permanently ceased operation in February 2013. Nuclear insurance includes: nuclear liability coverage; property damage coverage; nuclear accident decontamination and premature decommissioning coverage; and accidental outage coverage for losses in the event of a major accidental outage. Joint owners reimburse Duke Energy for certain expenses associated with nuclear insurance in accordance with joint owner agreements. The Price-Anderson Act requires plant owners to provide for public nuclear liability claims resulting from nuclear incidents to the maximum total financial protection liability, which is approximately $14.1 billion. For additional information on nuclear insurance see Note 5 to the Consolidated Financial Statements, "Commitments and Contingencies."

Duke Energy has a significant future financial commitment to dispose of spent nuclear fuel and decommission and decontaminate each plant safely. The NCUC, PSCSC and FPSC require Duke Energy to update their cost estimates for decommissioning their nuclear plants every five years.

The following table summarizes the fair value of NDTF balances and the most recent site-specific nuclear decommissioning cost study results for Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida. Decommissioning costs are stated in 2018 dollars for Duke Energy Carolinas, 2017 dollars for Duke Energy Florida and 2014 dollars for Duke Energy Progress, and include costs to decommission plant components not subject to radioactive contamination.

	NDTF[a]		Decommissioning	
(in millions)	**December 31, 2018**	**December 31, 2017**	**Costs[a]**	**Year of Cost Study**
Duke Energy	**$ 6,720**	$ 7,097	**$ 8,737**	2014 and 2018
Duke Energy Carolinas[b][c]	**3,558**	3,772	**4,291**	2018
Duke Energy Progress	**2,503**	2,588	**3,550**	2014
Duke Energy Florida[d]	**659**	736	**896**	2018

(a) Amounts for Progress Energy equal the sum of Duke Energy Progress and Duke Energy Florida.
(b) Decommissioning cost for Duke Energy Carolinas reflects its ownership interest in jointly owned reactors. Other joint owners are responsible for decommissioning costs related to their interest in the reactors.
(c) Duke Energy Carolinas' site-specific nuclear decommissioning cost study completed in 2018 is expected to be filed with the NCUC and PSCSC by the second quarter 2019. Duke Energy Carolinas will also complete a new funding study, which will be completed and filed with the NCUC and PSCSC in 2019.
(d) Duke Energy Florida's site-specific nuclear decommissioning cost study and a new funding study were completed and filed with the FPSC in 2018. For the years ended December 31, 2017 and December 31, 2018, Duke Energy Florida received reimbursements from the NDTF for costs related to ongoing decommissioning activity of Crystal River Unit 3.

The NCUC, PSCSC, FPSC and FERC have allowed Electric Utilities and Infrastructure to recover estimated decommissioning costs through retail and wholesale rates over the expected remaining service periods of their nuclear stations. Electric Utilities and Infrastructure believes the decommissioning costs being recovered through rates, when coupled with the existing fund balances and expected fund earnings, will be sufficient to provide for the cost of future decommissioning. For additional information, see Note 9 to the Consolidated Financial Statements, “Asset Retirement Obligations.”

The NWPA provides the framework for development by the federal government of interim storage and permanent disposal facilities for high-level radioactive waste materials. The government has not yet developed a storage facility or disposal capacity, so Electric Utilities and Infrastructure will continue to store spent fuel on its reactor sites.

Under federal law, the DOE is responsible for the selection and construction of a facility for the permanent disposal of spent nuclear fuel and high-level radioactive waste. The DOE terminated the project to license and develop a geologic repository at Yucca Mountain, Nevada in 2010, and is currently taking no action to fulfill its responsibilities to dispose of spent fuel.

Until the DOE begins to accept the spent nuclear fuel, Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida will continue to safely manage their spent nuclear fuel. Under current regulatory guidelines, Harris has sufficient storage capacity in its spent fuel pools through the expiration of its renewed operating license. Crystal River Unit 3 ceased operation in 2013 and was placed in a SAFSTOR condition in January 2018. As of January 2018, all spent fuel at Crystal River Unit 3 has been transferred from the spent fuel pool to dry storage at an on-site ISFSI. With certain modifications and approvals by the NRC to expand the on-site dry cask storage facilities, spent nuclear fuel dry storage facilities will be sufficient to provide storage space of spent fuel through the expiration of the operating licenses, including any license renewals, for Brunswick, Catawba, McGuire, Oconee and Robinson.

The nuclear power industry faces uncertainties with respect to the cost and long-term availability of disposal sites for spent nuclear fuel and other radioactive waste, compliance with changing regulatory requirements, capital outlays for modifications and new plant construction.

Electric Utilities and Infrastructure is subject to the jurisdiction of the NRC for the design, construction and operation of its nuclear generating facilities. The following table includes the current year of expiration of nuclear operating licenses for nuclear stations in operation. Nuclear operating licenses are potentially subject to extension.

Unit	Year of Expiration
Duke Energy Carolinas	
Catawba Units 1 and 2	2043
McGuire Unit 1	2041
McGuire Unit 2	2043
Oconee Units 1 and 2	2033
Oconee Unit 3	2034
Duke Energy Progress	
Brunswick Unit 1	2036
Brunswick Unit 2	2034
Harris	2046
Robinson	2030

The NRC has acknowledged permanent cessation of operation and permanent removal of fuel from the reactor vessel at Crystal River Unit 3. Therefore, the license no longer authorizes operation of the reactor. For additional information on nuclear decommissioning activity, see Notes 4 and 9 to the Consolidated Financial Statements, "Regulatory Matters" and "Asset Retirement Obligations," respectively.

On October 27, 2016, and December 15, 2016, the NRC issued combined operating licenses for Levy and Lee Nuclear Station, respectively. On August 29, 2017, Duke Energy announced the complete abandonment of the Levy project; the operating license was formally terminated on April 26, 2018. On August 25, 2017, as part of Duke Energy Carolinas rate case filing, Duke Energy Carolinas requested NCUC approval to cancel the development of the Lee Nuclear Station project with the intent to maintain the combined operating licenses. For additional information on the Lee Nuclear Station, see Note 4 to the Consolidated Financial Statements, "Regulatory Matters."

Regulation

State

The NCUC, PSCSC, FPSC, PUCO, IURC and KPSC (collectively, the state electric utility commissions) approve rates for Duke Energy's retail electric service within their respective states. The state electric utility commissions, to varying degrees, have authority over the construction and operation of Electric Utilities and Infrastructure's generating facilities. CPCN issued by the state electric utility commissions, as applicable, authorize Electric Utilities and Infrastructure to construct and operate its electric facilities and to sell electricity to retail and wholesale customers. Prior approval from the relevant state electric utility commission is required for the entities within Electric Utilities and Infrastructure to issue securities. The underlying concept of utility ratemaking is to set rates at a level that allows the utility to collect revenues equal to its cost of providing service plus earn a reasonable rate of return on its invested capital, including equity.

In addition to rates approved in base rate cases, each of the state electric utility commissions allow recovery of certain costs through various cost-recovery clauses to the extent the respective commission determines in periodic hearings that such costs, including any past over or under-recovered costs, are prudent.

Fuel, fuel-related costs and certain purchased power costs are eligible for recovery by Electric Utilities and Infrastructure. Electric Utilities and Infrastructure uses coal, hydroelectric, natural gas, oil, renewable generation and nuclear fuel to generate electricity, thereby maintaining a diverse fuel mix that helps mitigate the impact of cost increases in any one fuel. Due to the associated regulatory treatment and the method allowed for recovery, changes in fuel costs from year to year have no material impact on operating results of Electric Utilities and Infrastructure, unless a commission finds a portion of such costs to have been imprudent. However, delays between the expenditure for fuel costs and recovery from customers can adversely impact the timing of cash flows of Electric Utilities and Infrastructure.

The table below reflects significant electric rate case applications approved and effective in the past three years or applications currently pending approval.

	Regulatory Body	Annual Increase (Decrease) (in millions)	Return on Equity	Equity Component of Capital Structure	Effective Date
Approved Rate Cases:					
Duke Energy Carolinas 2017 North Carolina Rate Case	NCUC	$ (73)	9.9%	52%	8/1/2018
Duke Energy Progress 2017 North Carolina Rate Case	NCUC	151	9.9%	52%	3/16/2018
Duke Energy Ohio 2017 Ohio Electric Rate Case	PUCO	(19)	9.84%	50.75%	1/2/2019
Duke Energy Kentucky 2017 Kentucky Electric Rate Case	KPSC	8	9.725%	49%	5/1/2018
Duke Energy Progress 2016 South Carolina Rate Case	PSCSC	(a)	10.1%	53%	1/1/2017
Pending Rate Cases:					
Duke Energy Carolinas 2018 South Carolina Rate Case	PSCSC	$ 168	10.5%	53%	6/1/2019
Duke Energy Progress 2018 South Carolina Rate Case	PSCSC	59	10.5%	53%	6/1/2019

(a) An increase of approximately $38 million in revenues was effective January 1, 2017, and an additional increase of approximately $19 million in revenues was effective January 1, 2018.

For more information on rate matters and other regulatory proceedings, see Note 4 to the Consolidated Financial Statements, “Regulatory Matters.”

Federal

The FERC approves Electric Utilities and Infrastructure’s cost-based rates for electric sales to certain power and transmission wholesale customers. Regulations of FERC and the state electric utility commissions govern access to regulated electric and other data by nonregulated entities and services provided between regulated and nonregulated energy affiliates. These regulations affect the activities of nonregulated affiliates with Electric Utilities and Infrastructure.

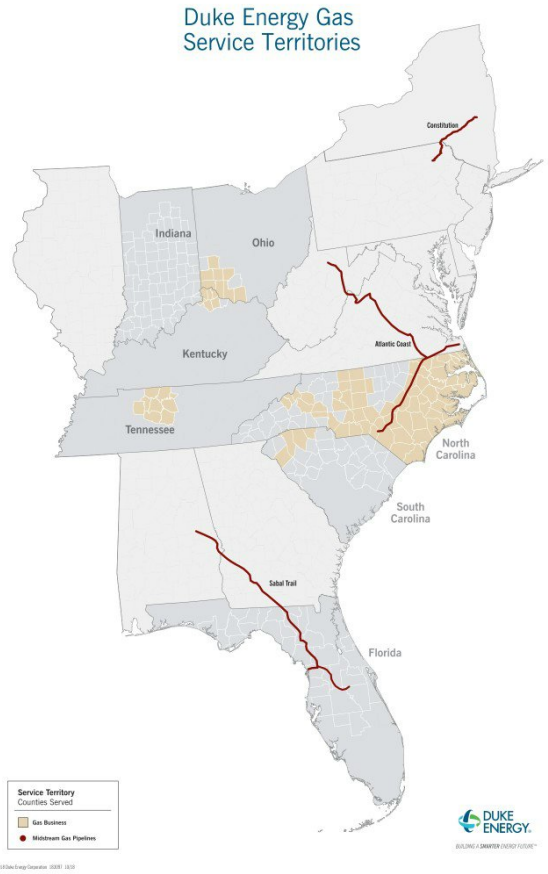
Regional Transmission Organizations (RTO). PJM and MISO are the ISOs and FERC-approved RTOs for the regions in which Duke Energy Ohio and Duke Energy Indiana operate. PJM and MISO operate energy, capacity and other markets, and control the day-to-day operations of bulk power systems through central dispatch.

Duke Energy Ohio is a member of PJM and Duke Energy Indiana is a member of MISO. Transmission owners in these RTOs have turned over control of their transmission facilities and their transmission systems are currently under the dispatch control of the RTOs. Transmission service is provided on a regionwide, open-access basis using the transmission facilities of the RTO members at rates based on the costs of transmission service.

Environmental. Electric Utilities and Infrastructure is subject to the jurisdiction of the EPA and state and local environmental agencies. For a discussion of environmental regulation, see “Environmental Matters” in this section. See the “Other Matters” section of Management's Discussion and Analysis for a discussion about potential Global Climate Change legislation and other EPA regulations under development and the potential impacts such legislation and regulation could have on Duke Energy’s operations.

GAS UTILITIES AND INFRASTRUCTURE

Gas Utilities and Infrastructure conducts natural gas operations primarily through the regulated public utilities of Piedmont and Duke Energy Ohio. The natural gas operations are subject to the rules and regulations of the NCUC, PSCSC, PUCO, KPSC, TPUC, PHMSA and the FERC. Gas Utilities and Infrastructure serves residential, commercial, industrial and power generation natural gas customers, including customers served by municipalities who are wholesale customers. Gas Utilities and Infrastructure has over 1.6 million customers, including more than 1.1 million customers located in North Carolina, South Carolina and Tennessee, and an additional 531,000 customers located within southwestern Ohio and northern Kentucky. In the Carolinas, Ohio and Kentucky, the service areas are comprised of numerous cities, towns and communities. In Tennessee, the service area is the metropolitan area of Nashville. The following map shows the service territory and investments in operating and proposed midstream properties for Gas Utilities and Infrastructure as of December 31, 2018.



The number of residential, commercial and industrial customers within the Gas Utilities and Infrastructure service territory is expected to increase over time. Average usage per residential customer is expected to remain flat or decline for the foreseeable future, however decoupled rates in North Carolina and various rate design mechanisms in other jurisdictions partially mitigate the impact of the declining usage per customer on overall profitability. While total industrial and general service sales increased in 2018 when compared to 2017, the growth rate was modest when compared to historical periods.

Gas Utilities and Infrastructure also owns, operates and has investments in various pipeline transmission and natural gas storage facilities.

Natural Gas for Retail Distribution

Gas Utilities and Infrastructure is responsible for the distribution of natural gas to retail customers in its North Carolina, South Carolina, Tennessee, Ohio and Kentucky service territories. Gas Utilities and Infrastructure's natural gas procurement strategy is to contract primarily with major and independent producers and marketers for natural gas supply. It also purchases a diverse portfolio of transportation and storage service from interstate pipelines. This strategy allows Gas Utilities and Infrastructure to assure reliable natural gas supply and transportation for its firm customers during peak winter conditions. When firm pipeline services or contracted natural gas supplies are temporarily not needed due to market demand fluctuations, Gas Utilities and Infrastructure may release these services and supplies in the secondary market under FERC-approved capacity release provisions or make wholesale secondary market sales. In 2018, firm supply purchase commitment agreements provided 100 percent of the natural gas supply for both Piedmont and Duke Energy Ohio.

Impact of Weather

Gas Utilities and Infrastructure revenues are generally protected from the impact of weather fluctuations due to the regulatory mechanisms that are available in most service territories. In North Carolina, margin decoupling provides protection from both weather and other usage variations like conservation for residential and commercial customer classes. Margin decoupling provides a set revenue per customer independent of actual usage. In South Carolina and Tennessee, weather normalization adjusts revenues either up or down depending on how much warmer or colder than normal a given month has been. Weather normalization adjustments occur from November through March in South Carolina and from October through April in Tennessee. Ohio collects most of its non-fuel revenue through a fixed monthly charge that is not impacted by usage fluctuations that result from weather changes or conservation. Kentucky, however, bills based on volumetric rates without weather protection.

Competition

Gas Utilities and Infrastructure's businesses operate as the sole provider of natural gas service within their retail service territories. Gas Utilities and Infrastructure owns and operates facilities necessary to transport and distribute natural gas. Gas Utilities and Infrastructure earns retail margin on the transmission and distribution of natural gas and not on the cost of the underlying commodity. Services are priced by state commission approved rates designed to include the costs of providing these services and a reasonable return on invested capital. This regulatory policy is intended to provide safe and reliable natural gas service at fair prices.

In residential, commercial and industrial customer markets, natural gas distribution operations compete with other companies that supply energy, primarily electric companies, propane and fuel oil dealers, renewable energy providers and coal companies in relation to sources of energy for electric power plants, as well as nuclear energy. A significant competitive factor is price. Gas Utilities and Infrastructure's primary product competition is with electricity for heating, water heating and cooking. Increases in the price of natural gas or decreases in the price of other energy sources could negatively impact competitive position by decreasing the price benefits of natural gas to the consumer. In the case of industrial customers, such as manufacturing plants, adverse economic or market conditions, including higher natural gas costs, could cause these customers to suspend business operations or to use alternative sources of energy in favor of energy sources with lower per-unit costs.

Higher natural gas costs or decreases in the price of other energy sources may allow competition from alternative energy sources for applications that have traditionally used natural gas, encouraging some customers to move away from natural gas-fired equipment to equipment fueled by other energy sources. Competition between natural gas and other forms of energy is also based on efficiency, performance, reliability, safety and other non-price factors. Technological improvements in other energy sources and events that impair the public perception of the non-price attributes of natural gas could erode our competitive advantage. These factors in turn could decrease the demand for natural gas, impair our ability to attract new customers and cause existing customers to switch to other forms of energy or to bypass our systems in favor of alternative competitive sources. This could result in slow or no customer growth and could cause customers to reduce or cease using our product, thereby reducing our ability to make capital expenditures and otherwise grow our business, adversely affecting our earnings.

Pipeline and Storage Investments

Duke Energy, through its Gas Utilities and Infrastructure segment, is a 47 percent equity member of ACP, which plans to build and own the proposed ACP pipeline, an approximately 600-mile interstate natural gas pipeline, regulated by FERC. The ACP pipeline is intended to transport diverse natural gas supplies into southeastern markets. Duke Energy Carolinas, Duke Energy Progress and Piedmont, among others, will be customers of the ACP pipeline. ACP expects to achieve a late 2020 in-service date for key segments of the project, while it expects a remainder to extend into 2021. Abnormal weather, work delays (including delays due to judicial or regulatory action) and other conditions may result in cost or schedule modifications in the future. ACP and Duke Energy will continue to consider their options with respect to the foregoing in light of their existing contractual and legal obligations.

Gas Utilities and Infrastructure also has a 7.5 percent equity ownership interest in Sabal Trail. Sabal Trail is a joint venture that owns the Sabal Trail pipeline to transport natural gas to Florida, regulated by FERC. The Sabal Trail phase one mainline was placed into service in July 2017 and traverses Alabama, Georgia and Florida. The remaining lateral line to the Duke Energy Florida's Citrus County CC was placed into service in March 2018.

Gas Utilities and Infrastructure has a 24 percent equity ownership interest in Constitution, an interstate pipeline development company formed to develop, construct, own and operate a 124-mile natural gas pipeline and related facilities, regulated by FERC. Constitution is slated to transport natural gas supplies from the Marcellus supply region in northern Pennsylvania to major northeastern markets. As a result of permitting delays and project uncertainty, Constitution is unable to approximate an in-service date.

Duke Energy, through its Gas Utilities and Infrastructure segment, has a 21.49 percent equity ownership interest in Cardinal, an intrastate pipeline located in North Carolina regulated by the NCUC, a 45 percent equity ownership in Pine Needle, an interstate liquefied natural gas storage facility located in North Carolina and a 50 percent equity ownership interest in Hardy Storage, an underground interstate natural gas storage facility located in Hardy and Hampshire counties in West Virginia. Pine Needle and Hardy Storage are regulated by FERC.

KO Transmission, a wholly owned subsidiary of Duke Energy Ohio, is an interstate pipeline company engaged in the business of transporting natural gas and is subject to the rules and regulations of FERC. KO Transmission's 90-mile pipeline supplies natural gas to Duke Energy Ohio and interconnects with the Columbia Gulf Transmission pipeline and Tennessee Gas Pipeline. An approximately 70-mile portion of KO Transmission's pipeline facilities is co-owned by Columbia Gas Transmission Corporation.

See Notes 4, 12 and 17 to the Consolidated Financial Statements, "Regulatory Matters," "Investments in Unconsolidated Affiliates" and "Variable Interest Entities," respectively, for further information on Duke Energy's pipeline investments.

Inventory

Gas Utilities and Infrastructure must maintain adequate natural gas inventory in order to provide reliable delivery to customers. As of December 31, 2018, the inventory balance for Gas Utilities and Infrastructure was $105 million. For more information on inventory, see Note 1 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies."

Regulation

State

The NCUC, PSCSC, PUCO, TPUC and KPSC (collectively, the state gas utility commissions) approve rates for Duke Energy's retail natural gas service within their respective states. The state gas utility commissions, to varying degrees, have authority over the construction and operation of Gas Utilities and Infrastructure's natural gas distribution facilities. CPCN or Certificates of Environmental Compatibility and Public Necessity issued by the state gas utility commissions or other government agencies, as applicable, authorize Gas Utilities and Infrastructure to construct and operate its natural gas distribution facilities and to sell natural gas to retail and wholesale customers. Prior approval from the relevant state gas utility commission is required for Gas Utilities and Infrastructure to issue securities. The underlying concept of utility ratemaking is to set rates at a level that allows the utility to collect revenues equal to its cost of providing service plus a reasonable rate of return on its invested capital, including equity.

In addition to amounts collected from customers through approved base rates, each of the state gas utility commissions allow recovery of certain costs through various cost-recovery clauses to the extent the respective commission determines in periodic hearings that such costs, including any past over- or under-recovered costs, are prudent.

Natural gas costs are eligible for recovery by Gas Utilities and Infrastructure. Due to the associated regulatory treatment and the method allowed for recovery, changes in natural gas costs from year to year have no material impact on operating results of Gas Utilities and Infrastructure, unless a commission finds a portion of such costs to have not been prudent. However, delays between the expenditure for natural gas and recovery from customers can adversely impact the timing of cash flows of Gas Utilities and Infrastructure.

The following table summarizes certain components underlying recently approved and effective base rates or rate stabilization filings in the last three years.

	Annual Increase (Decrease) (in millions)	Return on Equity	Equity Component of Capital Structure	Effective Date
Approved Rate Cases:				
Piedmont 2016 South Carolina Rate Stabilization Adjustment Filing	$ 8	10.2%	53.0%	November 2016
Piedmont 2017 South Carolina Rate Stabilization Adjustment Filing	6	10.2%	53.0%	November 2017
Piedmont 2018 South Carolina Rate Stabilization Adjustment Filing	(14)	10.2%	53.0%	November 2018
Pending Rate Cases:				
Duke Energy Kentucky 2018 Kentucky Gas Rate Case	$ 11	9.9%	50.755%	April 2019

Gas Utilities and Infrastructure has IMR mechanisms in North Carolina and Tennessee designed to separately track and recover certain costs associated with capital investments incurred to comply with federal pipeline safety and integrity programs, as well as additional state safety and integrity requirements in Tennessee. The following table summarizes information related to recently approved or pending IMR filings.

(in millions)	Cumulative Investment	Annual Margin Revenues	Effective Date
Piedmont 2018 IMR Filing – North Carolina	$ 924	$ 81	December 2018
Pending Filing:			**Proposed Effective Date**
Piedmont 2018 IMR Filing – Tennessee	$ 259	$ 26	January 2019

For more information on rate matters and other regulatory proceedings, see Note 4 to the Consolidated Financial Statements, "Regulatory Matters."

Federal

Gas Utilities and Infrastructure is subject to various federal regulations, including regulations that are particular to the natural gas industry. These federal regulations include but are not limited to the following:

- Regulations of the FERC affect the certification and siting of new interstate natural gas pipeline projects, the purchase and sale of, the prices paid for, and the terms and conditions of service for the interstate transportation and storage of natural gas.
- Regulations of the PHMSA affect the design, construction, operation, maintenance, integrity, safety and security of natural gas distribution and transmission systems.

- Regulations of the EPA relate to the environment including proposed air emissions regulations that would expand to include emissions of methane. For a discussion of environmental regulation, see “Environmental Matters” in this section. Refer to the “Other Matters” section of Management's Discussion and Analysis for a discussion about potential Global Climate Change legislation and other EPA regulations under development and the potential impacts such legislation and regulation could have on Duke Energy’s operations.

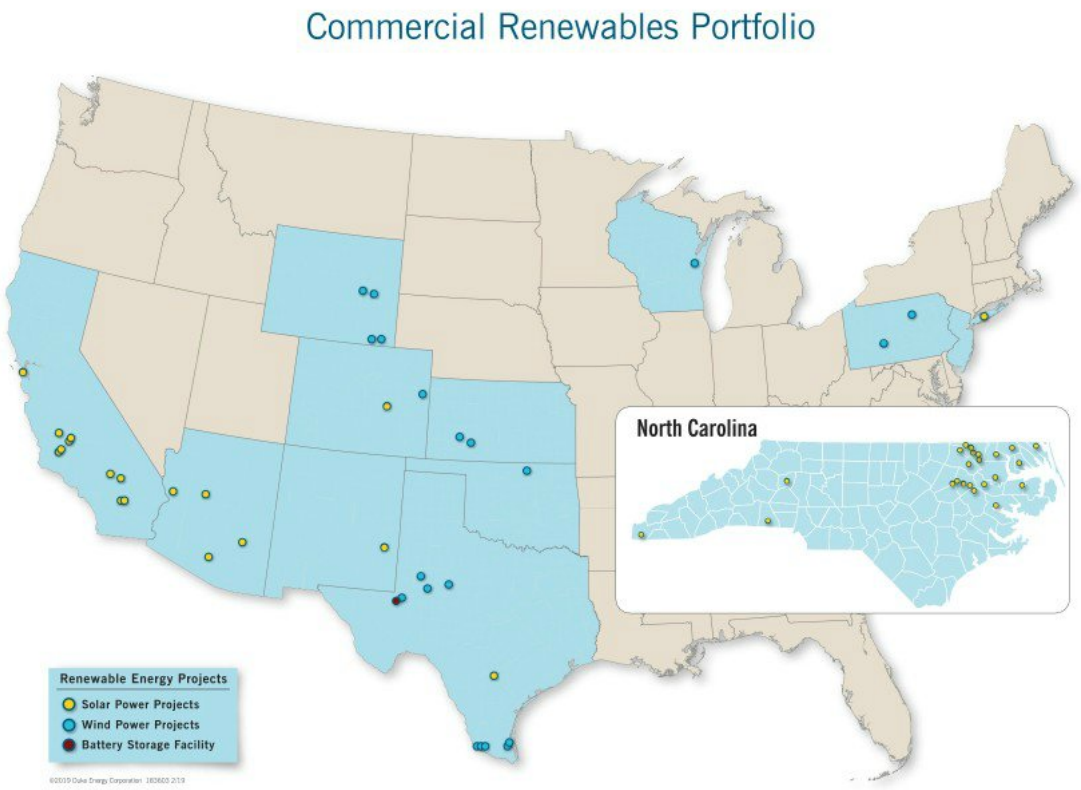
Regulations of FERC and the state gas utility commissions govern access to regulated natural gas and other data by nonregulated entities and services provided between regulated and nonregulated energy affiliates. These regulations affect the activities of nonregulated affiliates with Gas Utilities and Infrastructure.

Environmental. Gas Utilities and Infrastructure is subject to the jurisdiction of the EPA and state and local environmental agencies. For a discussion of environmental regulation, see “Environmental Matters” in this section. See “Other Matters” section of Management's Discussion and Analysis for a discussion about potential Global Climate Change legislation and other EPA regulations under development and the potential impacts such legislation and regulation could have on Duke Energy’s operations.

COMMERCIAL RENEWABLES

Commercial Renewables primarily acquires, develops, builds, operates and owns wind and solar renewable generation throughout the continental U.S. The portfolio includes nonregulated renewable energy and energy storage businesses.

Commercial Renewables' renewable energy includes utility-scale wind and solar generation assets, distributed solar generation assets and a battery storage project, which total 2,991 MW across 19 states from 21 wind facilities, 100 solar facilities and one battery storage facility. Revenues are primarily generated by selling the power produced from renewable generation through long-term contracts to utilities, electric cooperatives, municipalities and commercial and industrial customers. In most instances, these customers have obligations under state-mandated renewable energy portfolio standards or similar state or local renewable energy goals. Energy and renewable energy credits generated by wind and solar projects are generally sold at contractual prices. The following map shows the service territory for Commercial Renewables as of December 31, 2018.



As eligible wind and solar projects are placed in service, Commercial Renewables recognizes either PTCs as power is generated by wind projects over 10 years or ITCs when the renewable solar or wind project achieves commercial availability. ITCs are recognized over the useful life of the asset as a reduction to depreciation expense with the benefit of the tax basis adjustment due to the ITC being recognized in income in the year of commercial availability. The ITC is being phased down from the current 30 percent rate to a permanent 10 percent rate if construction begins in 2019 through 2022. The PTC is being phased out and wind turbines will earn 10 years of PTCs at phased-out rates if construction begins in 2017 through 2019.

As part of its growth strategy, Commercial Renewables has expanded its investment portfolio through the addition of distributed solar companies and projects, energy storage systems and energy management solutions specifically tailored to commercial businesses. These investments include REC Solar Corp., a California-based provider of solar installations for retail, manufacturing, agriculture, technology, government and nonprofit customers across the U.S. and Phoenix Energy Technologies Inc., a California-based provider of enterprise energy management and information software to commercial businesses.

Commercial Renewables has entered into agreements for certain of its solar generating assets that are held by LLCs whose members include a noncontrolling tax equity investor. The allocation of earnings, tax attributes and cash distributions to the tax equity investor are based on certain of the liquidation provisions pursuant to the LLC agreements. The allocations to the tax equity investors can result in variability in earnings to Duke Energy. As part of its growth strategy, Commercial Renewables expects to enter into these arrangements for future wind and solar generating assets.

For additional information on Commercial Renewables' generation facilities, see Item 2, “Properties.”

Market Environment and Competition

Commercial Renewables primarily competes for wholesale contracts for the generation and sale of electricity from wind and solar generation assets it either develops or acquires and owns. The market price of commodities and services, along with the quality and reliability of services provided, drive competition in the wholesale energy business. The number and type of competitors may vary based on location, generation type and project size. Commercial Renewables' main competitors include other nonregulated generators and wholesale power providers.

Sources of Electricity

Commercial Renewables relies on wind, solar and battery resources for its generation of electric energy.

Regulation

Commercial Renewables is subject to regulation at the federal level, primarily from the FERC. Regulations of the FERC govern access to regulated market information by nonregulated entities and services provided between regulated and nonregulated utilities.

OTHER

The remainder of Duke Energy’s operations is presented as Other. While it is not a business segment, Other primarily includes interest expense on holding company debt, unallocated corporate costs including costs to achieve strategic acquisitions, amounts related to certain companywide initiatives and contributions made to the Duke Energy Foundation. Other also includes Bison and an investment in NMC.

The Duke Energy Foundation is a nonprofit organization funded by Duke Energy shareholders that makes charitable contributions to selected nonprofits and government subdivisions.

Bison, a wholly owned subsidiary of Duke Energy, is a captive insurance company with the principal activity of providing Duke Energy subsidiaries with indemnification for financial losses primarily related to property, workers’ compensation and general liability.

Duke Energy owns a 17.5 percent equity interest in NMC. The joint venture company has production facilities in Jubail, Saudi Arabia where it manufactures certain petrochemicals and plastics. The company annually produces approximately 1 million metric tons each of MTBE and methanol and has the capacity to produce 50,000 metric tons of polyacetal. The main feedstocks to produce these products are natural gas and butane. Duke Energy records the investment activity of NMC using the equity method of accounting and retains 25 percent of NMC's board of directors representation and voting rights.

Employees

On December 31, 2018, Duke Energy had a total of 30,083 employees on its payroll. The total includes 5,446 employees who are represented by labor unions under various collective bargaining agreements that generally cover wages, benefits, working practices, and other terms and conditions of employment.

Executive Officers of the Registrants

The following table sets forth the individuals who currently serve as executive officers. Executive officers serve until their successors are duly elected or appointed.

Name	Age[(a)]	Current and Recent Positions Held
Lynn J. Good	59	**Chairman, President and Chief Executive Officer.** Ms. Good was elected as Chairman of the Board, effective January 1, 2016, and assumed her position as President and Chief Executive Officer in July 2013. Prior to that, she served as Executive Vice President and Chief Financial Officer since 2009.
Steven K. Young	60	**Executive Vice President and Chief Financial Officer.** Mr. Young assumed his current position in August 2013. Prior to that, he served as Vice President, Chief Accounting Officer and Controller, assuming the role of Chief Accounting Officer in July 2012 and the role of Controller in December 2006.
Douglas F Esamann	61	**Executive Vice President, Energy Solutions and President, Midwest and Florida Regions.** Mr. Esamann assumed his current position in September 2016 and was Executive Vice President and President, Midwest and Florida Regions since June 2015. Prior to that, he served as President, Duke Energy Indiana since November 2010.
Lloyd M. Yates	58	**Executive Vice President, Customer and Delivery Operations and President, Carolinas Region.** Mr. Yates assumed his current position in September 2016 and was Executive Vice President, Market Solutions and President, Carolinas Region since August 2014. He held the position of Executive Vice President, Regulated Utilities from November 2012 to August 2014, and prior to that, served as Executive Vice President, Customer Operations since July 2012, upon the merger of Duke Energy and Progress Energy.
Dhiaa M. Jamil	62	**Executive Vice President and Chief Operating Officer.** Mr. Jamil assumed the role of Chief Operating Officer in May 2016. Prior to his current position, he held the title Executive Vice President and President, Regulated Generation and Transmission since June 2015. Prior to that, he served as Executive Vice President and President, Regulated Generation since August 2014. He served as Executive Vice President and President of Duke Energy Nuclear from March 2013 to August 2014, and was Chief Nuclear Officer from February 2008 to February 2013.
Franklin H. Yoho	59	**Executive Vice President and President, Natural Gas Business.** Mr. Yoho assumed his current position in October 2016 upon the acquisition of Piedmont by Duke Energy. Prior to this appointment, he served as Senior Vice President and Chief Commercial Officer of Piedmont since August 2011.
Julia S. Janson	54	**Executive Vice President, External Affairs and Chief Legal Officer.** Ms. Janson has held the position of Executive Vice President, External Affairs and Chief Legal Officer since November 2018. She originally assumed the position of Executive Vice President, Chief Legal Officer and Corporate Secretary in December 2012, and then assumed the responsibilities for External Affairs in February 2016.
Melissa H. Anderson	54	**Executive Vice President, Administration and Chief Human Resources Officer.** Ms. Anderson assumed her position in May 2016 and had been Executive Vice President and Chief Human Resources Officer since January 2015. Prior to joining Duke Energy, she served as Senior Vice President of Human Resources at Domtar Inc. since 2010.
Dwight L. Jacobs	53	**Senior Vice President, Chief Accounting Officer, Tax and Controller.** Mr. Jacobs has served as Senior Vice President, Chief Accounting Officer, Tax and Controller since January 1, 2019. Prior to that, he served as Senior Vice President, Chief Accounting Officer and Controller since June 1, 2018. Prior to that, he served as Senior Vice President, Financial Planning & Analysis since February 2016 and as Chief Risk Officer since July 2014. Prior to his role as Chief Risk Officer, Mr. Jacobs served as Vice President, Rates & Regulatory Strategy since May 2010.

(a) The ages of the officers provided are as of December 31, 2018.

There are no family relationships between any of the executive officers, nor any arrangement or understanding between any executive officer and any other person involved in officer selection.

Environmental Matters

The Duke Energy Registrants are subject to federal, state and local laws and regulations with regard to air and water quality, hazardous and solid waste disposal and other environmental matters. Environmental laws and regulations affecting the Duke Energy Registrants include, but are not limited to:

- The CAA, as well as state laws and regulations impacting air emissions, including State Implementation Plans related to existing and new national ambient air quality standards for ozone and particulate matter. Owners and/or operators of air emission sources are responsible for obtaining permits and for annual compliance and reporting.
- The CWA, which requires permits for facilities that discharge wastewaters into navigable waters.
- The Comprehensive Environmental Response, Compensation and Liability Act, which can require any individual or entity that currently owns or in the past owned or operated a disposal site, as well as transporters or generators of hazardous substances sent to a disposal site, to share in remediation costs.
- The National Environmental Policy Act, which requires federal agencies to consider potential environmental impacts in their permitting and licensing decisions, including siting approvals.
- Coal Ash Act, as amended, which establishes requirements regarding the use and closure of existing ash basins, the disposal of ash at active coal plants and the handling of surface water and groundwater impacts from ash basins in North Carolina.

- The Solid Waste Disposal Act, as amended by the RCRA, which creates a framework for the proper management of hazardous and nonhazardous solid waste; classifies CCR as nonhazardous waste; and establishes standards for landfill and surface impoundment placement, design, operation and closure, groundwater monitoring, corrective action, and post-closure care.
- The TSCA, which gives EPA the authority to require reporting, recordkeeping and testing requirements, and to place restrictions relating to chemical substances and/or mixtures, including polychlorinated biphenyls.
- The proposed ACE rule, which will require states to develop CO_2 reduction plans based on efficiency (heat rate) improvements at coal-fired power plants.

For more information on environmental matters, see Notes 5 and 9 to the Consolidated Financial Statements, “Commitments and Contingencies – Environmental” and "Asset Retirement Obligations," respectively, and the “Other Matters” section of Management's Discussion and Analysis. Except as otherwise described in these sections, costs to comply with current federal, state and local provisions regulating the discharge of materials into the environment or other potential costs related to protecting the environment are incorporated into the routine cost structure of our various business segments and are not expected to have a material adverse effect on the competitive position, consolidated results of operations, cash flows or financial position of the Duke Energy Registrants.

The "Other Matters" section of Management's Discussion and Analysis includes an estimate of future capital expenditures required to comply with environmental regulations and a discussion of Global Climate Change including the potential impact of current and future legislation related to GHG emissions on the Duke Energy Registrants' operations. Recently passed and potential future environmental statutes and regulations could have a significant impact on the Duke Energy Registrants’ results of operations, cash flows or financial position. However, if and when such statutes and regulations become effective, the Duke Energy Registrants will seek appropriate regulatory recovery of costs to comply within its regulated operations.

DUKE ENERGY CAROLINAS

Duke Energy Carolinas is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Carolinas’ service area covers approximately 24,000 square miles and supplies electric service to 2.6 million residential, commercial and industrial customers. For information about Duke Energy Carolinas’ generating facilities, see Item 2, “Properties.” Duke Energy Carolinas is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Substantially all of Duke Energy Carolinas' operations are regulated and qualify for regulatory accounting. Duke Energy Carolinas operates one reportable business segment, Electric Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, “Business Segments.”

PROGRESS ENERGY

Progress Energy is a public utility holding company primarily engaged in the regulated electric utility business and is subject to regulation by the FERC. Progress Energy conducts operations through its wholly owned subsidiaries, Duke Energy Progress and Duke Energy Florida. When discussing Progress Energy’s financial information, it necessarily includes the results of Duke Energy Progress and Duke Energy Florida.

Substantially all of Progress Energy’s operations are regulated and qualify for regulatory accounting. Progress Energy operates one reportable business segment, Electric Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, “Business Segments.”

DUKE ENERGY PROGRESS

Duke Energy Progress is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Progress’ service area covers approximately 32,000 square miles and supplies electric service to approximately 1.6 million residential, commercial and industrial customers. For information about Duke Energy Progress’ generating facilities, see Item 2, “Properties.” Duke Energy Progress is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Substantially all of Duke Energy Progress’ operations are regulated and qualify for regulatory accounting. Duke Energy Progress operates one reportable business segment, Electric Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, “Business Segments.”

DUKE ENERGY FLORIDA

Duke Energy Florida is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Florida. Duke Energy Florida’s service area covers approximately 13,000 square miles and supplies electric service to approximately 1.8 million residential, commercial and industrial customers. For information about Duke Energy Florida’s generating facilities, see Item 2, “Properties.” Duke Energy Florida is subject to the regulatory provisions of the FPSC, NRC and FERC.

Substantially all of Duke Energy Florida’s operations are regulated and qualify for regulatory accounting. Duke Energy Florida operates one reportable business segment, Electric Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, “Business Segments.”

DUKE ENERGY OHIO

Duke Energy Ohio is a regulated public utility primarily engaged in the transmission and distribution of electricity in portions of Ohio and Kentucky, in the generation and sale of electricity in portions of Kentucky and the transportation and sale of natural gas in portions of Ohio and Kentucky. Duke Energy Ohio also conducts competitive auctions for retail electricity supply in Ohio whereby recovery of the energy price is from retail customers. Operations in Kentucky are conducted through its wholly owned subsidiary, Duke Energy Kentucky. References herein to Duke Energy Ohio include Duke Energy Ohio and its subsidiaries, unless otherwise noted. Duke Energy Ohio is subject to the regulatory provisions of the PUCO, KPSC, PHMSA and FERC.

Duke Energy Ohio's service area covers approximately 3,000 square miles and supplies electric service to approximately 860,000 residential, commercial and industrial customers and provides transmission and distribution services for natural gas to approximately 538,000 customers. For information about Duke Energy Ohio's generating facilities, see Item 2, "Properties."

KO Transmission, a wholly owned subsidiary of Duke Energy Ohio, is an interstate pipeline company engaged in the business of transporting natural gas and is subject to the rules and regulations of FERC. KO Transmission's 90-mile pipeline supplies natural gas to Duke Energy Ohio and interconnects with the Columbia Gulf Transmission pipeline and Tennessee Gas Pipeline. An approximately 70-mile portion of KO Transmission's pipeline facilities is co-owned by Columbia Gas Transmission Corporation.

Substantially all of Duke Energy Ohio's operations are regulated and qualify for regulatory accounting. Duke Energy Ohio has two reportable segments, Electric Utilities and Infrastructure and Gas Utilities and Infrastructure. For additional information on these business segments, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

DUKE ENERGY INDIANA

Duke Energy Indiana is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Indiana. Duke Energy Indiana's service area covers 23,000 square miles and supplies electric service to 840,000 residential, commercial and industrial customers. For information about Duke Energy Indiana's generating facilities, see Item 2, "Properties." Duke Energy Indiana is subject to the regulatory provisions of the IURC and FERC.

Substantially all of Duke Energy Indiana's operations are regulated and qualify for regulatory accounting. Duke Energy Indiana operates one reportable business segment, Electric Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

PIEDMONT

Piedmont is a regulated public utility primarily engaged in the distribution of natural gas to over 1 million residential, commercial, industrial and power generation customers in portions of North Carolina, South Carolina and Tennessee, including customers served by municipalities who are wholesale customers. For information about Piedmont's natural gas distribution facilities, see Item 2, "Properties." Piedmont is subject to the regulatory provisions of the NCUC, PSCSC, TPUC, PHMSA and FERC.

Substantially all of Piedmont's operations are regulated and qualify for regulatory accounting. Piedmont operates one reportable business segment, Gas Utilities and Infrastructure. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

ITEM 1A. RISK FACTORS

In addition to other disclosures within this Form 10-K, including "Management's Discussion and Analysis of Financial Condition and Results of Operations – Matters Impacting Future Results" for each registrant in Item 7, and other documents filed with the SEC from time to time, the following factors should be considered in evaluating Duke Energy and its subsidiaries. Such factors could affect actual results of operations and cause results to differ substantially from those currently expected or sought. Unless otherwise indicated, risk factors discussed below generally relate to risks associated with all of the Duke Energy Registrants. Risks identified at the Subsidiary Registrant level are generally applicable to Duke Energy.

Business Strategy Risks

Duke Energy's future results could be adversely affected if it is unable to implement its business strategy.

Duke Energy's results of operations depend, in significant part, on the extent to which it can implement its business strategy successfully. Duke Energy's strategy, including transforming the customer experience, modernizing the energy grid, generating cleaner energy, expansion of natural gas infrastructure, modernizing the regulatory construct, digital transformation and engaging employees and stakeholders to accomplish these priorities, is subject to business, economic and competitive uncertainties and contingencies, many of which are beyond its control. As a consequence, Duke Energy may not be able to fully implement or realize the anticipated results of its strategy.

Regulatory, Legislative and Legal Risks

The Duke Energy Registrants' regulated utility revenues, earnings and results are dependent on state legislation and regulation that affect electric generation, electric and natural gas transmission, distribution and related activities, which may limit their ability to recover costs.

The Duke Energy Registrants' regulated electric and natural gas utility businesses are regulated on a cost-of-service/rate-of-return basis subject to statutes and regulatory commission rules and procedures of North Carolina, South Carolina, Florida, Ohio, Tennessee, Indiana and Kentucky. If the Duke Energy Registrants' regulated utility earnings exceed the returns established by the state utility commissions, retail electric and natural gas rates may be subject to review and possible reduction by the commissions, which may decrease the Duke Energy Registrants' earnings. Additionally, if regulatory bodies do not allow recovery of costs incurred in providing service, or do not do so on a timely basis, the Duke Energy Registrants' earnings could be negatively impacted.

If legislative and regulatory structures were to evolve in such a way that the Duke Energy Registrants' exclusive rights to serve their regulated customers were eroded, their earnings could be negatively impacted. Federal and state regulations, laws and other efforts designed to promote and expand the use of energy efficiency measures and distributed generation technologies, such as private solar and battery storage, in Duke Energy service territories could result in customers leaving the electric distribution system and an increase in customer net energy metering, which allows customers with private solar to receive bill credits for surplus power at the full retail amount. Over time, customer adoption of these technologies and increased energy efficiency could result in excess generation resources as well as stranded costs if Duke Energy is not able to fully recover the costs and investment in generation.

State regulators have approved various mechanisms to stabilize natural gas utility margins, including margin decoupling in North Carolina and rate stabilization in South Carolina. State regulators have approved other margin stabilizing mechanisms that, for example, allow for recovery of margin losses associated with negotiated transactions designed to retain large volume customers that could use alternative fuels or that may otherwise directly access natural gas supply through their own connection to an interstate pipeline. If regulators decided to discontinue the Duke Energy Registrants' use of tariff mechanisms, it would negatively impact results of operations, financial condition and cash flows. In addition, regulatory authorities also review whether natural gas costs are prudent and can disallow the recovery of a portion of natural gas costs that the Duke Energy Registrants seek to recover from customers, which would adversely impact earnings.

The rates that the Duke Energy Registrants' regulated utility businesses are allowed to charge are established by state utility commissions in rate case proceedings, which may limit their ability to recover costs and earn an appropriate return on investment.

The rates that the Duke Energy Registrants' regulated utility business are allowed to charge significantly influences the results of operations, financial position and cash flows of the Duke Energy Registrants. The regulation of the rates that the regulated utility businesses charge customers is determined, in large part, by state utility commissions in rate case proceedings. Negative decisions made by these regulators, or by any court on appeal of a rate case proceeding, could have a material adverse effect on the Duke Energy Registrants' results of operations, financial position or cash flows and affect the ability of the Duke Energy Registrants to recover costs and an appropriate return on the significant infrastructure investments being made.

Deregulation or restructuring in the electric industry may result in increased competition and unrecovered costs that could adversely affect the Duke Energy Registrants' financial position, results of operations or cash flows and their utility businesses.

Increased competition resulting from deregulation or restructuring legislation could have a significant adverse impact on the Duke Energy Registrants' results of operations, financial position or cash flows. If the retail jurisdictions served by the Duke Energy Registrants become subject to deregulation, the impairment of assets, loss of retail customers, lower profit margins or increased costs of capital, and recovery of stranded costs could have a significant adverse financial impact on the Duke Energy Registrants. Stranded costs primarily include the generation assets of the Duke Energy Registrants whose value in a competitive marketplace may be less than their current book value, as well as above-market purchased power commitments from QFs from whom the Duke Energy Registrants are legally obligated to purchase energy at an avoided cost rate under PURPA. The Duke Energy Registrants cannot predict the extent and timing of entry by additional competitors into the electric markets. The Duke Energy Registrants cannot predict if or when they will be subject to changes in legislation or regulation, nor can they predict the impact of these changes on their results of operations, financial position or cash flows.

The Duke Energy Registrants' businesses are subject to extensive federal regulation and a wide variety of laws and governmental policies, including taxes, that may change over time in ways that affect operations and costs.

The Duke Energy Registrants are subject to regulations under a wide variety of U.S. federal and state regulations and policies, including by FERC, NRC, EPA and various other federal agencies as well as the North American Electric Reliability Corporation. Regulation affects almost every aspect of the Duke Energy Registrants' businesses, including, among other things, their ability to: take fundamental business management actions; determine the terms and rates of transmission and distribution services; make acquisitions; issue equity or debt securities; engage in transactions with other subsidiaries and affiliates; and pay dividends upstream to the Duke Energy Registrants. Changes to federal regulations are continuous and ongoing. There can be no assurance that laws, regulations and policies will not be changed in ways that result in material modifications of business models and objectives or affect returns on investment by restricting activities and products, subjecting them to escalating costs, causing delays, or prohibiting them outright.

The Duke Energy Registrants are subject to numerous environmental laws and regulations requiring significant capital expenditures that can increase the cost of operations, and which may impact or limit business plans, or cause exposure to environmental liabilities.

The Duke Energy Registrants are subject to numerous environmental laws and regulations affecting many aspects of their present and future operations, including CCRs, air emissions, water quality, wastewater discharges, solid waste and hazardous waste. These laws and regulations can result in increased capital, operating and other costs. These laws and regulations generally require the Duke Energy Registrants to obtain and comply with a wide variety of environmental licenses, permits, inspections and other approvals. Compliance with environmental laws and regulations can require significant expenditures, including expenditures for cleanup costs and damages arising from contaminated properties. Failure to comply with environmental regulations may result in the imposition of fines, penalties and injunctive measures affecting operating assets. The steps the Duke Energy Registrants could be required to take to ensure their facilities are in compliance could be prohibitively expensive. As a result, the Duke Energy Registrants may be required to shut down or alter the operation of their facilities, which may cause the Duke Energy Registrants to incur losses. Further, the Duke Energy Registrants may not be successful in recovering capital and operating costs incurred to comply with new environmental regulations through existing regulatory rate structures and their contracts with customers. Also, the Duke Energy Registrants may not be able to obtain or maintain from time to time all required environmental regulatory approvals for their operating assets or development projects. Delays in obtaining any required environmental regulatory approvals, failure to obtain and comply with them or changes in environmental laws or regulations to more stringent compliance levels could result in additional costs of operation for existing facilities or development of new facilities being prevented, delayed or subject to additional costs. Although it is not expected that the costs to comply with current environmental regulations will have a material adverse effect on the Duke Energy Registrants' results of operations, financial position and cash flows due to regulatory cost recovery, the Duke Energy Registrants are at risk that the costs of complying with environmental regulations in the future will have such an effect.

The EPA has enacted or proposed federal regulations governing the management of cooling water intake structures, wastewater and CO_2 emissions. These regulations may require the Duke Energy Registrants to make additional capital expenditures and increase operating and maintenance costs.

Duke Energy Carolinas and Duke Energy Progress are subject to the terms of probation set out in judgments of the United States District Court for the Eastern District of North Carolina on May 14, 2015. The judgments are based on events and activities that took place prior to 2015. The terms of probation require the companies to comply with certain environmental regulatory obligations related to coal ash and subject the two companies to oversight by a Court Appointed Monitor. If Duke Energy Carolinas or Duke Energy Progress failed to comply with certain coal ash-related environmental laws and regulations or otherwise violated the terms of probation, it could result in the imposition of additional penalties, including the revocation of probation and re-prosecution of the underlying violations. Although it is not expected that the companies will violate the terms of probation or that additional material penalties would occur, a significant violation of probation could have a material adverse effect on the Duke Energy Registrants' reputation, results of operations, financial position and cash flows.

The Duke Energy Registrants' operations, capital expenditures and financial results may be affected by regulatory changes related to the impacts of global climate change.

There is continued concern, both nationally and internationally, about climate change. The EPA and state regulators may adopt and implement regulations to restrict emissions of GHGs to address global climate change. Increased regulation of GHG emissions could impose significant additional costs on the Duke Energy Registrants' operations, their suppliers and customers. Regulatory changes could also result in generation facilities to be retired early and result in stranded costs if Duke Energy is not able to fully recover the costs and investment in generation.

Operational Risks

The Duke Energy Registrants' results of operations may be negatively affected by overall market, economic and other conditions that are beyond their control.

Sustained downturns or sluggishness in the economy generally affect the markets in which the Duke Energy Registrants operate and negatively influence operations. Declines in demand for electricity or natural gas as a result of economic downturns in the Duke Energy Registrants' regulated service territories will reduce overall sales and lessen cash flows, especially as industrial customers reduce production and, therefore, consumption of electricity and the use of natural gas. Although the Duke Energy Registrants' regulated electric and natural gas businesses are subject to regulated allowable rates of return and recovery of certain costs, such as fuel and purchased natural gas costs, under periodic adjustment clauses, overall declines in electricity or natural gas sold as a result of economic downturn or recession could reduce revenues and cash flows, thereby diminishing results of operations. Additionally, prolonged economic downturns that negatively impact the Duke Energy Registrants' results of operations and cash flows could result in future material impairment charges to write-down the carrying value of certain assets, including goodwill, to their respective fair values.

The Duke Energy Registrants also sell electricity into the spot market or other competitive power markets on a contractual basis. With respect to such transactions, the Duke Energy Registrants are not guaranteed any rate of return on their capital investments through mandated rates, and revenues and results of operations are likely to depend, in large part, upon prevailing market prices. These market prices may fluctuate substantially over relatively short periods of time and could reduce the Duke Energy Registrants' revenues and margins, thereby diminishing results of operations.

Factors that could impact sales volumes, generation of electricity and market prices at which the Duke Energy Registrants are able to sell electricity and natural gas are as follows:

- weather conditions, including abnormally mild winter or summer weather that cause lower energy or natural gas usage for heating or cooling purposes, as applicable, and periods of low rainfall that decrease the ability to operate facilities in an economical manner;
- supply of and demand for energy commodities;
- transmission or transportation constraints or inefficiencies that impact nonregulated energy operations;

- availability of competitively priced alternative energy sources, which are preferred by some customers over electricity produced from coal, nuclear or natural gas plants, and customer usage of energy-efficient equipment that reduces energy demand;
- natural gas, crude oil and refined products production levels and prices;
- ability to procure satisfactory levels of inventory, such as coal, natural gas and uranium; and
- capacity and transmission service into, or out of, the Duke Energy Registrants' markets.

Natural disasters or operational accidents may adversely affect the Duke Energy Registrants' operating results.

Natural disasters or other operational accidents within the company or industry (such as forest fires, earthquakes, hurricanes or natural gas transmission pipeline explosions) could have direct or indirect impacts to the Duke Energy Registrants or to key contractors and suppliers. Further, the generation of electricity and the transportation and storage of natural gas involve inherent operating risks that may result in accidents involving serious injury or loss of life, environmental damage or property damage. Such events could impact the Duke Energy Registrants through changes to policies, laws and regulations whose compliance costs have a significant impact on the Duke Energy Registrants' results of operations, financial position and cash flows. In addition, if a serious operational accident were to occur, it could have a material adverse effect on the results of operations, financial position, cash flows and reputation of the Duke Energy Registrants.

The reputation and financial condition of the Duke Energy Registrants could be negatively impacted due to their obligations to comply with federal and state regulations, laws, and other legal requirements that govern the operations, assessments, storage, closure, remediation, disposal and monitoring relating to CCR, the high costs and new rate impacts associated with implementing these new CCR-related requirements and the strategies and methods necessary to implement these requirements in compliance with these legal obligations.

As a result of electricity produced for decades at coal-fired power plants, the Duke Energy Registrants manage large amounts of CCR that are primarily stored in dry storage within landfills or combined with water in other surface impoundments, all in compliance with applicable regulatory requirements. However, the potential exists for another CCR-related incident, such as the one that occurred during the 2014 Dan River Steam Station ash basin release, that could raise environmental or public health concerns. Such a CCR-related incident could have a material adverse impact on the reputation and results of operations, financial position and cash flows of the Duke Energy Registrants.

During 2015, EPA regulations were enacted related to the management of CCR from power plants. These regulations classify CCR as nonhazardous waste under the RCRA and apply to electric generating sites with new and existing landfills, new and existing surface impoundments, structural fills and CCR piles, and establishes requirements regarding landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring, protection and remedial procedures and other operational and reporting procedures for the disposal and management of CCR. In addition to the federal regulations, CCR landfills and surface impoundments will continue to be independently regulated by existing state laws, regulations and permits, as well as additional legal requirements that may be imposed in the future. These federal and state laws, regulations and other legal requirements may require or result in additional expenditures, increased operating and maintenance costs and/or result in closure of certain power generating facilities, which could affect the results of operations, financial position and cash flows of the Duke Energy Registrants. The Duke Energy Registrants will continue to seek full cost recovery for expenditures through the normal ratemaking process with state and federal utility commissions, who permit recovery in rates of necessary and prudently incurred costs associated with the Duke Energy Registrants' regulated operations, and through other wholesale contracts with terms that contemplate recovery of such costs, although there is no guarantee of full cost recovery. In addition, the timing for recovery of such costs could have a material adverse impact on Duke Energy's cash flows.

The Duke Energy Registrants have recognized significant asset retirement obligations related to these CCR-related requirements. Closure activities began in 2015 at the four sites specified as high priority by the Coal Ash Act and at the W.S. Lee Steam Station site in South Carolina in connection with other legal requirements. Excavation at these sites involves movement of large amounts of CCR materials to off-site locations for use as structural fill, to appropriate engineered off-site or on-site lined landfills or conversion of the ash for beneficial use. At other sites, preliminary planning and closure methods have been studied and factored into the estimated retirement and management costs. The Coal Ash Act requires CCR surface impoundments in North Carolina to be closed, with the closure method and timing based on a risk ranking classification determined by legislation or state regulators. Additionally, the RCRA required closure timing depends upon meeting or continuing to meet certain criteria. As the closure and CCR management work progresses and final closure plans and corrective action measures are developed and approved at each site, the scope and complexity of work and the amount of CCR material could be greater than estimates and could, therefore, materially increase compliance expenditures and rate impacts.

The Duke Energy Registrants' financial position, results of operations and cash flows may be negatively affected by a lack of growth or slower growth in the number of customers, or decline in customer demand or number of customers.

Growth in customer accounts and growth of customer usage each directly influence demand for electricity and natural gas and the need for additional power generation and delivery facilities. Customer growth and customer usage are affected by a number of factors outside the control of the Duke Energy Registrants, such as mandated energy efficiency measures, demand-side management goals, distributed generation resources and economic and demographic conditions, such as population changes, job and income growth, housing starts, new business formation and the overall level of economic activity.

Certain regulatory and legislative bodies have introduced or are considering requirements and/or incentives to reduce energy consumption by certain dates. Additionally, technological advances driven by federal laws mandating new levels of energy efficiency in end-use electric devices or other improvements in or applications of technology could lead to declines in per capita energy consumption.

Advances in distributed generation technologies that produce power, including fuel cells, microturbines, wind turbines and solar cells, may reduce the cost of alternative methods of producing power to a level competitive with central power station electric production utilized by the Duke Energy Registrants.

Some or all of these factors could result in a lack of growth or decline in customer demand for electricity or number of customers and may cause the failure of the Duke Energy Registrants to fully realize anticipated benefits from significant capital investments and expenditures, which could have a material adverse effect on their results of operations, financial position and cash flows.

Furthermore, the Duke Energy Registrants currently have energy efficiency riders in place to recover the cost of energy efficiency programs in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. Should the Duke Energy Registrants be required to invest in conservation measures that result in reduced sales from effective conservation, regulatory lag in adjusting rates for the impact of these measures could have a negative financial impact.

The Duke Energy Registrants' operating results may fluctuate on a seasonal and quarterly basis and can be negatively affected by changes in weather conditions and severe weather, including extreme weather conditions associated with climate change.

Electric power generation and natural gas distribution are generally seasonal businesses. In most parts of the U.S., the demand for power peaks during the warmer summer months, with market prices also typically peaking at that time. In other areas, demand for power peaks during the winter. Demand for natural gas peaks during the winter months. Further, extreme weather conditions such as hurricanes, droughts, heat waves, winter storms and severe weather associated with climate change could cause these seasonal fluctuations to be more pronounced. As a result, the overall operating results of the Duke Energy Registrants' businesses may fluctuate substantially on a seasonal and quarterly basis and thus make period-to-period comparison less relevant.

Sustained severe drought conditions could impact generation by hydroelectric plants, as well as fossil and nuclear plant operations, as these facilities use water for cooling purposes and for the operation of environmental compliance equipment. Furthermore, destruction caused by severe weather events, such as hurricanes, tornadoes, severe thunderstorms, snow and ice storms, can result in lost operating revenues due to outages, property damage, including downed transmission and distribution lines, and additional and unexpected expenses to mitigate storm damage. The cost of storm restoration efforts may not be fully recoverable through the regulatory process.

The Duke Energy Registrants' sales may decrease if they are unable to gain adequate, reliable and affordable access to transmission assets.

The Duke Energy Registrants depend on transmission and distribution facilities owned and operated by utilities and other energy companies to deliver electricity sold to the wholesale market. The FERC's power transmission regulations require wholesale electric transmission services to be offered on an open-access, non-discriminatory basis. If transmission is disrupted, or if transmission capacity is inadequate, the Duke Energy Registrants' ability to sell and deliver products may be hindered.

The different regional power markets have changing regulatory structures, which could affect growth and performance in these regions. In addition, the ISOs who oversee the transmission systems in regional power markets have imposed in the past, and may impose in the future, price limitations and other mechanisms to address volatility in the power markets. These types of price limitations and other mechanisms may adversely impact the profitability of the Duke Energy Registrants' wholesale power marketing business.

Duke Energy may be unable to complete necessary or desirable pipeline expansion or infrastructure development or maintenance projects, which may prevent the Duke Energy Registrants from expanding the natural gas business.

In order to serve current or new natural gas customers or expand the service to existing customers, the Duke Energy Registrants need to maintain, expand or upgrade distribution, transmission and/or storage infrastructure, including laying new pipeline and building compressor stations. Duke Energy Registrants have made significant investments in a number of pipeline development projects, which are being operated and constructed by third-party joint venture partners. The Duke Energy Registrants must rely on their third-party joint venture partners for proper construction management of the projects and are dependent upon contractors for the successful and timely completion of the projects. In addition, various factors, such as the inability to obtain required approval from local, state and/or federal regulatory and governmental bodies, public opposition to projects, adverse litigation rulings, inability to obtain adequate financing, competition for labor and materials, construction delays, cost overruns and the inability to negotiate acceptable agreements relating to rights of way, construction or other material development components, may prevent or delay the completion of projects or materially increase the cost of such projects, which could have a material adverse effect on the results of operations and financial position of Duke Energy.

The availability of adequate interstate pipeline transportation capacity and natural gas supply may decrease.

The Duke Energy Registrants purchase almost all of their natural gas supply from interstate sources that must be transported to the applicable service territories. Interstate pipeline companies transport the natural gas to the Duke Energy Registrants' systems under firm service agreements that are designed to meet the requirements of their core markets. A significant disruption to interstate pipelines capacity or reduction in natural gas supply due to events including, but not limited to, operational failures or disruptions, hurricanes, tornadoes, floods, freeze off of natural gas wells, terrorist or cyberattacks or other acts of war or legislative or regulatory actions or requirements, including remediation related to integrity inspections, could reduce the normal interstate supply of natural gas and thereby reduce earnings. Moreover, if additional natural gas infrastructure, including, but not limited to, exploration and drilling rigs and platforms, processing and gathering systems, off-shore pipelines, interstate pipelines and storage, cannot be built at a pace that meets demand, then growth opportunities could be limited and earnings negatively impacted.

Fluctuations in commodity prices or availability may adversely affect various aspects of the Duke Energy Registrants' operations as well as their financial position, results of operations and cash flows.

The Duke Energy Registrants are exposed to the effects of market fluctuations in the price of natural gas, coal, fuel oil, nuclear fuel, electricity and other energy-related commodities as a result of their ownership of energy-related assets. Fuel costs are recovered primarily through cost-recovery clauses, subject to the approval of state utility commissions.

Additionally, the Duke Energy Registrants are exposed to risk that counterparties will not be able to fulfill their obligations. Disruption in the delivery of fuel, including disruptions as a result of, among other things, transportation delays, weather, labor relations, force majeure events or environmental regulations affecting any of these fuel suppliers, could limit the Duke Energy Registrants' ability to operate their facilities. Should counterparties fail to perform, the Duke Energy Registrants might be forced to replace the underlying commitment at prevailing market prices possibly resulting in losses in addition to the amounts, if any, already paid to the counterparties.

Certain of the Duke Energy Registrants' hedge agreements may result in the receipt of, or posting of, collateral with counterparties, depending on the daily market-based calculation of financial exposure of the derivative positions. Fluctuations in commodity prices that lead to the return of collateral received and/or the posting of collateral with counterparties could negatively impact liquidity. Downgrades in the Duke Energy Registrants' credit ratings could lead to additional collateral posting requirements. The Duke Energy Registrants continually monitor derivative positions in relation to market price activity.

Potential terrorist activities, or military or other actions, could adversely affect the Duke Energy Registrants' businesses.

The continued threat of terrorism and the impact of retaliatory military and other action by the U.S. and its allies may lead to increased political, economic and financial market instability and volatility in prices for natural gas and oil, which may have material adverse effects in ways the Duke Energy Registrants cannot predict at this time. In addition, future acts of terrorism and possible reprisals as a consequence of action by the U.S. and its allies could be directed against companies operating in the U.S. Information technology systems, transmission and distribution and generation facilities such as nuclear plants could be potential targets of terrorist activities or harmful activities by individuals or groups that could have a material adverse effect on Duke Energy Registrants' businesses. In particular, the Duke Energy Registrants may experience increased capital and operating costs to implement increased security for their information technology systems, transmission and distribution and generation facilities, including nuclear power plants under the NRC's design basis threat requirements. These increased costs could include additional physical plant security and security personnel or additional capability following a terrorist incident.

The failure of Duke Energy information technology systems, or the failure to enhance existing information technology systems and implement new technology, could adversely affect the Duke Energy Registrants' businesses.

Duke Energy's operations are dependent upon the proper functioning of its internal systems, including the information technology systems that support our underlying business processes. Any significant failure or malfunction of such information technology systems may result in disruptions of our operations. In the ordinary course of business, we rely on information technology systems, including the internet and third-party hosted services, to support a variety of business processes and activities and to store sensitive data, including (i) intellectual property, (ii) proprietary business information, (iii) personally identifiable information of our customers and employees, and (iv) data with respect to invoicing and the collection of payments, accounting, procurement, and supply chain activities. Our information technology systems are dependent upon global communications and cloud service providers, as well as their respective vendors, many of whom have at some point experienced significant system failures and outages in the past and may experience such failures and outages in the future. These providers' systems are susceptible to cybersecurity and data breaches, outages from fire, floods, power loss, telecommunications failures, break-ins and similar events. Failure to prevent or mitigate data loss from system failures or outages could materially affect the results of operations, financial position and cash flows of the Duke Energy Registrants.

In addition to maintaining our current information technology systems, Duke Energy believes the digital transformation of its business is key to driving internal efficiencies as well as providing additional capabilities to customers. Duke Energy's information technology systems are critical to cost-effective, reliable daily operations and our ability to effectively serve our customers. We expect our customers to continue to demand more sophisticated technology-driven solutions and we must enhance or replace our information technology systems in response. This involves significant development and implementation costs to keep pace with changing technologies and customer demand. If we fail to successfully implement critical technology, or if it does not provide the anticipated benefits or meet customer demands, such failure could materially adversely affect our business strategy as well as impact the results of operations, financial position and cash flows of the Duke Energy Registrants.

Cyberattacks and data security breaches could adversely affect the Duke Energy Registrants' businesses.

Cybersecurity risks have increased in recent years as a result of the proliferation of new technologies and the increased sophistication, magnitude and frequency of cyberattacks and data security breaches. Duke Energy relies on the continued operation of sophisticated digital information technology systems and network infrastructure, which are part of an interconnected regional grid. Additionally, connectivity to the internet continues to increase through grid modernization and other operational excellence initiatives. Because of the critical nature of the infrastructure, increased connectivity to the internet and technology systems' inherent vulnerability to disability or failures due to hacking, viruses, acts of war or terrorism or other types of data security breaches, the Duke Energy Registrants face a heightened risk of cyberattack from foreign or domestic sources and have been subject, and will likely continue to be subject, to attempts to gain unauthorized access to information and/or information systems or to disrupt utility operations through computer viruses and phishing attempts either directly or indirectly through its material vendors or related third parties. In the event of a significant cybersecurity breach on either the Duke Energy Registrants or with one of our material vendors or related third parties, the Duke Energy Registrants could (i) have business operations disrupted, including the disruption of the operation of our assets and the power grid, theft of confidential company, employee, shareholder, vendor or customer information, and general business systems and process interruption or compromise, including preventing the Duke Energy Registrants from servicing customers, collecting revenues or the recording, processing and/or reporting financial information correctly, (ii) experience substantial loss of revenues, repair and restoration costs, penalties and costs for lack of compliance with relevant regulations, implementation costs for additional security measures to avert future cyberattacks and other financial loss and (iii) be subject to increased regulation, litigation and reputational damage. While Duke Energy maintains insurance relating to cybersecurity events, such insurance is subject to a number of exclusions and may be insufficient to offset any losses, costs or damage experienced. Also, the market for cybersecurity insurance is relatively new and coverage available for cybersecurity events may evolve as the industry matures.

The Duke Energy Registrants are subject to standards enacted by the North American Electric Reliability Corporation and enforced by FERC regarding protection of the physical and cyber security of critical infrastructure assets required for operating North America's bulk electric system. The Duke Energy Registrants are also subject to regulations set by the Nuclear Regulatory Commission regarding the protection of digital computer and communication systems and networks required for the operation of nuclear power plants. While the Duke Energy Registrants believe they are in compliance with such standards and regulations, the Duke Energy Registrants have from time to time been, and may in the future be, found to be in violation of such standards and regulations. In addition, compliance with or changes in the applicable standards and regulations may subject the Duke Energy Registrants to higher operating costs and/or increased capital expenditures as well as substantial fines for non-compliance.

Failure to attract and retain an appropriately qualified workforce could unfavorably impact the Duke Energy Registrants' results of operations.

Certain events, such as an aging workforce, mismatch of skill set or complement to future needs, or unavailability of contract resources may lead to operating challenges and increased costs. The challenges include lack of resources, loss of knowledge base and the lengthy time required for skill development. In this case, costs, including costs for contractors to replace employees, productivity costs and safety costs, may increase. Failure to hire and adequately train replacement employees, including the transfer of significant internal historical knowledge and expertise to new employees, or future availability and cost of contract labor may adversely affect the ability to manage and operate the business, especially considering the workforce needs associated with nuclear generation facilities and new skills required to operate a modernized, technology-enabled power grid. If the Duke Energy Registrants are unable to successfully attract and retain an appropriately qualified workforce, their results of operations, financial position and cash flows could be negatively affected.

The costs of decommissioning Duke Energy Florida's Crystal River Unit 3 could prove to be more extensive than is currently identified.

Costs to decommission the plant could exceed estimates and, if not recoverable through the regulatory process, could adversely affect Duke Energy's, Progress Energy's and Duke Energy Florida's results of operations, financial position and cash flows.

Duke Energy Ohio's and Duke Energy Indiana's membership in an RTO presents risks that could have a material adverse effect on their results of operations, financial position and cash flows.

The rules governing the various regional power markets may change, which could affect Duke Energy Ohio's and Duke Energy Indiana's costs and/or revenues. To the degree Duke Energy Ohio and Duke Energy Indiana incur significant additional fees and increased costs to participate in an RTO, their results of operations may be impacted. Duke Energy Ohio and Duke Energy Indiana may be allocated a portion of the cost of transmission facilities built by others due to changes in RTO transmission rate design. Duke Energy Ohio and Duke Energy Indiana may be required to expand their transmission system according to decisions made by an RTO rather than their own internal planning process. In addition, RTOs have been developing rules associated with the allocation and methodology of assigning costs associated with improved transmission reliability, reduced transmission congestion and firm transmission rights that may have a financial impact on the results of operations, financial position and cash flows of Duke Energy Ohio and Duke Energy Indiana.

As members of an RTO, Duke Energy Ohio and Duke Energy Indiana are subject to certain additional risks, including those associated with the allocation among RTO members, of losses caused by unreimbursed defaults of other participants in the RTO markets and those associated with complaint cases filed against an RTO that may seek refunds of revenues previously earned by RTO members.

The Duke Energy Registrants may not recover costs incurred to begin construction on projects that are canceled.

Duke Energy's long-term strategy requires the construction of new projects, either wholly owned or partially owned, which involve a number of risks, including construction delays, nonperformance by equipment and other third-party suppliers, and increases in equipment and labor costs. To limit the risks of these construction projects, the Duke Energy Registrants enter into equipment purchase orders and construction contracts and incur engineering and design service costs in advance of receiving necessary regulatory approvals and/or siting or environmental permits. If any of these projects are canceled for any reason, including failure to receive necessary regulatory approvals and/or siting or environmental permits, significant cancellation penalties under the equipment purchase orders and construction contracts could occur. In addition, if any construction work or investments have been recorded as an asset, an impairment may need to be recorded in the event the project is canceled.

Nuclear Generation Risks

Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida may incur substantial costs and liabilities due to their ownership and operation of nuclear generating facilities.

Ownership interests in and operation of nuclear stations by Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida subject them to various risks. These risks include, among other things: the potential harmful effects on the environment and human health resulting from the current or past operation of nuclear facilities and the storage, handling and disposal of radioactive materials; limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with nuclear operations; and uncertainties with respect to the technological and financial aspects of decommissioning nuclear plants at the end of their licensed lives.

Ownership and operation of nuclear generation facilities requires compliance with licensing and safety-related requirements imposed by the NRC. In the event of non-compliance, the NRC may increase regulatory oversight, impose fines or shut down a unit depending upon its assessment of the severity of the situation. Revised security and safety requirements promulgated by the NRC, which could be prompted by, among other things, events within or outside of the control of Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, such as a serious nuclear incident at a facility owned by a third party, could necessitate substantial capital and other expenditures, as well as assessments to cover third-party losses. In addition, if a serious nuclear incident were to occur, it could have a material adverse effect on the results of operations, financial position, cash flows and reputation of the Duke Energy Registrants.

Liquidity, Capital Requirements and Common Stock Risks

The Duke Energy Registrants rely on access to short-term borrowings and longer-term debt and equity markets to finance their capital requirements and support their liquidity needs. Access to those markets can be adversely affected by a number of conditions, many of which are beyond the Duke Energy Registrants' control.

The Duke Energy Registrants' businesses are significantly financed through issuances of debt and equity. The maturity and repayment profile of debt used to finance investments often does not correlate to cash flows from their assets. Accordingly, as a source of liquidity for capital requirements not satisfied by the cash flows from their operations and to fund investments originally financed through debt instruments with disparate maturities, the Duke Energy Registrants rely on access to short-term money markets as well as longer-term capital markets. The Subsidiary Registrants also rely on access to short-term intercompany borrowings. If the Duke Energy Registrants are not able to access debt or equity at competitive rates or at all, the ability to finance their operations and implement their strategy and business plan as scheduled could be adversely affected. An inability to access debt and equity may limit the Duke Energy Registrants' ability to pursue improvements or acquisitions that they may otherwise rely on for future growth.

Market disruptions may increase the cost of borrowing or adversely affect the ability to access one or more financial markets. Such disruptions could include: economic downturns, the bankruptcy of an unrelated energy company, unfavorable capital market conditions, market prices for electricity and natural gas, actual or threatened terrorist attacks, or the overall health of the energy industry. The availability of credit under Duke Energy's Master Credit Facility depends upon the ability of the banks providing commitments under the facility to provide funds when their obligations to do so arise. Systematic risk of the banking system and the financial markets could prevent a bank from meeting its obligations under the facility agreement.

Duke Energy maintains a revolving credit facility to provide backup for its commercial paper program and letters of credit to support variable rate demand tax-exempt bonds that may be put to the Duke Energy Registrant issuer at the option of the holder. The facility includes borrowing sublimits for the Duke Energy Registrants, each of whom is a party to the credit facility, and financial covenants that limit the amount of debt that can be outstanding as a percentage of the total capital for the specific entity. Failure to maintain these covenants at a particular entity could preclude Duke Energy from issuing commercial paper or the Duke Energy Registrants from issuing letters of credit or borrowing under the Master Credit Facility.

The Duke Energy Registrants must meet credit quality standards and there is no assurance they will maintain investment grade credit ratings. If the Duke Energy Registrants are unable to maintain investment grade credit ratings, they would be required under credit agreements to provide collateral in the form of letters of credit or cash, which may materially adversely affect their liquidity.

Each of the Duke Energy Registrants' senior long-term debt issuances is currently rated investment grade by various rating agencies. The Duke Energy Registrants cannot ensure their senior long-term debt will be rated investment grade in the future.

If the rating agencies were to rate the Duke Energy Registrants below investment grade, borrowing costs would increase, perhaps significantly. In addition, the potential pool of investors and funding sources would likely decrease. Further, if the short-term debt rating were to fall, access to the commercial paper market could be significantly limited.

A downgrade below investment grade could also require the posting of additional collateral in the form of letters of credit or cash under various credit, commodity and capacity agreements and trigger termination clauses in some interest rate derivative agreements, which would require cash payments. All of these events would likely reduce the Duke Energy Registrants' liquidity and profitability and could have a material effect on their results of operations, financial position and cash flows.

Non-compliance with debt covenants or conditions could adversely affect the Duke Energy Registrants' ability to execute future borrowings.

The Duke Energy Registrants' debt and credit agreements contain various financial and other covenants. Failure to meet those covenants beyond applicable grace periods could result in accelerated due dates and/or termination of the agreements.

Market performance and other changes may decrease the value of the NDTF investments of Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, which then could require significant additional funding.

Ownership and operation of nuclear generation facilities also requires the maintenance of funded trusts that are intended to pay for the decommissioning costs of the respective nuclear power plants. The performance of the capital markets affects the values of the assets held in trust to satisfy these future obligations. Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida have significant obligations in this area and hold significant assets in these trusts. These assets are subject to market fluctuations and will yield uncertain returns, which may fall below projected rates of return. Although a number of factors impact funding requirements, a decline in the market value of the assets may increase the funding requirements of the obligations for decommissioning nuclear plants. If Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida are unable to successfully manage their NDTF assets, their results of operations, financial position and cash flows could be negatively affected.

Poor investment performance of the Duke Energy pension plan holdings and other factors impacting pension plan costs could unfavorably impact the Duke Energy Registrants' liquidity and results of operations.

The costs of providing non-contributory defined benefit pension plans are dependent upon a number of factors, such as the rates of return on plan assets, discount rates, the level of interest rates used to measure the required minimum funding levels of the plans, future government regulation and required or voluntary contributions made to the plans. The Subsidiary Registrants are allocated their proportionate share of the cost and obligations related to these plans. Without sustained growth in the pension investments over time to increase the value of plan assets and, depending upon the other factors impacting costs as listed above, Duke Energy could be required to fund its plans with significant amounts of cash. Such cash funding obligations, and the Subsidiary Registrants' proportionate share of such cash funding obligations, could have a material impact on the Duke Energy Registrants' results of operations, financial position and cash flows.

Duke Energy is a holding company and depends on the cash flows from its subsidiaries to meet its financial obligations.

Because Duke Energy is a holding company with no operations or cash flows of its own, its ability to meet its financial obligations, including making interest and principal payments on outstanding indebtedness and to pay dividends on its common stock, is primarily dependent on the net income and cash flows of its subsidiaries and the ability of those subsidiaries to pay upstream dividends or to repay borrowed funds. Prior to funding Duke Energy, its subsidiaries have regulatory restrictions and financial obligations that must be satisfied. These subsidiaries are separate legal entities and have no obligation to provide Duke Energy with funds. In addition, Duke Energy may provide capital contributions or debt financing to its subsidiaries under certain circumstances, which would reduce the funds available to meet its financial obligations, including making interest and principal payments on outstanding indebtedness and to pay dividends on Duke Energy's common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

ELECTRIC UTILITIES AND INFRASTRUCTURE

The following table provides information related to the Electric Utilities and Infrastructure's generation stations as of December 31, 2018. The MW displayed in the table below are based on summer capacity. Ownership interest in all facilities is 100 percent unless otherwise indicated.

Facility	Plant Type	Primary Fuel	Location	Owned MW Capacity
Duke Energy Carolinas				
Oconee	Nuclear	Uranium	SC	2,554
McGuire	Nuclear	Uranium	NC	2,316
Catawba[(a)]	Nuclear	Uranium	SC	445
Belews Creek	Fossil	Coal	NC	2,220
Marshall	Fossil	Coal	NC	2,058
J.E. Rogers	Fossil	Coal	NC	1,388
Lincoln CT	Fossil	Gas/Oil	NC	1,193
Allen	Fossil	Coal	NC	1,098
Rockingham CT	Fossil	Gas/Oil	NC	825
Buck CC	Fossil	Gas	NC	668
Dan River CC	Fossil	Gas	NC	662
Mill Creek CT	Fossil	Gas/Oil	SC	563
W.S. Lee CC[(b)]	Fossil	Gas	SC	686
W.S. Lee	Fossil	Gas	SC	170
W.S. Lee CT	Fossil	Gas/Oil	SC	84
Bad Creek	Hydro	Water	SC	1,360
Jocassee	Hydro	Water	SC	780
Cowans Ford	Hydro	Water	NC	324
Keowee	Hydro	Water	SC	152
Other small facilities (23 plants)	Hydro	Water	NC/SC	632
Distributed generation	Renewable	Solar	NC	31
Total Duke Energy Carolinas				**20,209**

Facility	Plant Type	Primary Fuel	Location	Owned MW Capacity
Duke Energy Progress				
Brunswick	Nuclear	Uranium	NC	1,870
Harris	Nuclear	Uranium	NC	932
Robinson	Nuclear	Uranium	SC	741
Roxboro	Fossil	Coal	NC	2,439
Smith CC	Fossil	Gas/Oil	NC	1,073
H.F. Lee CC	Fossil	Gas/Oil	NC	888
Wayne County CT	Fossil	Gas/Oil	NC	857
Smith CT	Fossil	Gas/Oil	NC	772
Darlington CT	Fossil	Gas/Oil	SC	613
Mayo	Fossil	Coal	NC	727
L.V. Sutton CC	Fossil	Gas/Oil	NC	607
Asheville	Fossil	Coal	NC	378
Asheville CT	Fossil	Gas/Oil	NC	320
Weatherspoon CT	Fossil	Gas/Oil	NC	124
L.V. Sutton CT (Black Start)	Fossil	Gas/Oil	NC	78
Blewett CT	Fossil	Oil	NC	52
Walters	Hydro	Water	NC	112
Other small facilities (3 plants)	Hydro	Water	NC	115
Distributed generation	Renewable	Solar	NC	49
Total Duke Energy Progress				**12,747**

Facility	Plant Type	Primary Fuel	Location	Owned MW Capacity
Duke Energy Florida				
Citrus County CC	Fossil	Gas	FL	1,632
Crystal River	Fossil	Coal	FL	1,422
Hines CC	Fossil	Gas/Oil	FL	2,045
Bartow CC	Fossil	Gas/Oil	FL	1,104
Anclote	Fossil	Gas	FL	1,003
Intercession City CT	Fossil	Gas/Oil	FL	951
Osprey CC	Fossil	Gas/Oil	FL	582
DeBary CT	Fossil	Gas/Oil	FL	561
Tiger Bay CC	Fossil	Gas/Oil	FL	200
Bartow CT	Fossil	Gas/Oil	FL	168
Bayboro CT	Fossil	Oil	FL	171
Suwannee River CT	Fossil	Gas	FL	149
Higgins CT	Fossil	Gas/Oil	FL	107
Avon Park CT	Fossil	Gas/Oil	FL	48
University of Florida CoGen CT	Fossil	Gas	FL	44
Hamilton	Renewable	Solar	FL	43
Distributed generation	Renewable	Solar	FL	8
Total Duke Energy Florida				**10,238**

Facility	Plant Type	Primary Fuel	Location	Owned MW Capacity
Duke Energy Ohio				
East Bend	Fossil	Coal	KY	600
Woodsdale CT	Fossil	Gas/Propane	OH	476
Beckjord Battery Storage	Renewable	Storage	OH	4
Total Duke Energy Ohio				**1,080**

Facility	Plant Type	Primary Fuel	Location	Owned MW Capacity
Duke Energy Indiana				
Gibson[(c)]	Fossil	Coal	IN	2,822
Cayuga[(d)]	Fossil	Coal/Oil	IN	1,005
Edwardsport	Fossil	Coal	IN	595
Madison CT	Fossil	Gas	OH	566
Vermillion CT[(e)]	Fossil	Gas	IN	360
Wheatland CT	Fossil	Gas	IN	450
Noblesville CC	Fossil	Gas/Oil	IN	264
Gallagher	Fossil	Coal	IN	280
Henry County CT	Fossil	Gas/Oil	IN	129
Cayuga CT	Fossil	Gas/Oil	IN	80
Markland	Hydro	Water	IN	45
Distributed generation	Renewable	Solar	IN	10
Total Duke Energy Indiana				**6,606**

Totals by Type	Owned MW Capacity
Total Electric Utilities	**50,880**
Totals By Plant Type	
Nuclear	8,858
Fossil	38,357
Hydro	3,520
Renewable	145
Total Electric Utilities	**50,880**

(a) Jointly owned with North Carolina Municipal Power Agency Number 1, NCEMC and PMPA. Duke Energy Carolinas' ownership is 19.25 percent of the facility.
(b) Jointly owned with NCEMC. Duke Energy Carolinas' ownership is 86.67 percent of the facility.
(c) Duke Energy Indiana owns and operates Gibson Station Units 1 through 4 and is a joint owner of unit 5 with WVPA and Indiana Municipal Power Agency. Duke Energy Indiana operates unit 5 and owns 50.05 percent.
(d) Includes Cayuga Internal Combustion.
(e) Jointly owned with WVPA. Duke Energy Indiana's ownership is 62.50 percent of the facility.

The following table provides information related to Electric Utilities and Infrastructure's electric transmission and distribution properties as of December 31, 2018.

	Duke Energy	Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Electric Transmission Lines						
Miles of 500 to 525 kV	1,036	576	292	168	—	—
Miles of 345 kV	1,145	—	—	—	421	724
Miles of 230 kV	8,344	2,657	3,396	1,638	—	653
Miles of 100 to 161 kV	12,509	6,830	2,565	891	821	1,402
Miles of 13 to 69 kV	8,345	3,014	12	2,200	612	2,507
Total conductor miles of electric transmission lines	31,379	13,077	6,265	4,897	1,854	5,286
Electric Distribution Lines						
Miles of overhead lines	174,200	66,600	46,500	25,600	13,300	22,200
Miles of underground line	106,000	38,500	30,000	22,500	6,000	9,000
Total conductor miles of electric distribution lines	280,200	105,100	76,500	48,100	19,300	31,200
Number of electric transmission and distribution substations	3,291	1,476	512	493	310	500

Substantially all of Electric Utilities and Infrastructure's electric plant in service is mortgaged under indentures relating to Duke Energy Carolinas', Duke Energy Progress', Duke Energy Florida's, Duke Energy Ohio's and Duke Energy Indiana's various series of First Mortgage Bonds.

GAS UTILITIES AND INFRASTRUCTURE

Gas Utilities and Infrastructure owns transmission pipelines and distribution mains that are generally underground, located near public streets and highways, or on property owned by others for which Duke Energy Ohio and Piedmont have obtained the necessary legal rights to place and operate facilities on such property located within the Gas Utilities and Infrastructure service territories. The following table provides information related to Gas Utilities and Infrastructure's natural gas distribution.

	Duke Energy	Duke Energy Ohio	Piedmont
Miles of natural gas distribution and transmission pipelines	33,300	7,200	26,100
Miles of natural gas service lines	27,700	7,000	20,700

COMMERCIAL RENEWABLES

The following table provides information related to Commercial Renewables' electric generation facilities as of December 31, 2018. The MW displayed in the table below are based on nameplate capacity. Ownership interest in all facilities is 100 percent unless otherwise indicated.

Facility	Plant Type	Location	Owned MW Capacity
Commercial Renewables – Wind			
Los Vientos (five sites)	Renewable	TX	912
Top of the World	Renewable	WY	200
Frontier	Renewable	OK	201
Notrees	Renewable	TX	153
Campbell Hill	Renewable	WY	99
North Allegheny	Renewable	PA	70
Laurel Hill	Renewable	PA	69
Ocotillo	Renewable	TX	59
Kit Carson	Renewable	CO	51
Silver Sage	Renewable	WY	42
Happy Jack	Renewable	WY	29
Shirley	Renewable	WI	20
Sweetwater IV[(a)]	Renewable	TX	113
Sweetwater V[(a)]	Renewable	TX	38
Ironwood[(a)]	Renewable	KS	84
Cimarron II[(a)]	Renewable	KS	66
Mesquite Creek[(a)]	Renewable	TX	106
Total Renewables – Wind			2,312
Commercial Renewables – Solar			
Conetoe II	Renewable	NC	80
Seville I & II	Renewable	CA	50
Rio Bravo I & II	Renewable	CA	40
Wildwood I & II	Renewable	CA	35
Caprock	Renewable	NM	25
Shoreham[(b)]	Renewable	NY	25
Kelford	Renewable	NC	22
Highlander	Renewable	CA	21
Dogwood	Renewable	NC	20
Halifax Airport	Renewable	NC	20
Pasquotank	Renewable	NC	20
Pumpjack	Renewable	CA	20
Shawboro	Renewable	NC	20
Longboat	Renewable	CA	20
Bagdad	Renewable	AZ	15
TX Solar	Renewable	TX	14
Creswell Alligood	Renewable	NC	14
Victory	Renewable	CO	13
Washington White Post	Renewable	NC	12
Whitakers	Renewable	NC	12
Other small solar[(b)]	Renewable	Various	145
Total Renewables – Solar			643
Commercial Renewables – Energy Storage			
Notrees Battery Storage	Renewable	TX	36
Total Renewables – Energy Storage			36
Total Commercial Renewables			**2,991**

(a) Commercial Renewables owns 47 percent of Sweetwater IV and V and 50 percent of Ironwood, Cimarron II and Mesquite Creek.
(b) Shoreham and certain projects included in Other small solar are in tax-equity structures where investors have differing interests in the project's economic attributes. 100 percent of the tax-equity project's capacity is included in the table above.

OTHER

Duke Energy owns approximately 8 million square feet and leases approximately 2 million square feet of corporate, regional and district office space spread throughout its service territories.

ITEM 3. LEGAL PROCEEDINGS

For information regarding legal proceedings, including regulatory and environmental matters, see Note 4, “Regulatory Matters,” and Note 5, “Commitments and Contingencies,” to the Consolidated Financial Statements.

MTBE Litigation

On June 19, 2014, the Commonwealth of Pennsylvania filed suit against, among others, Duke Energy Merchants, alleging contamination of waters of the state by MTBE from leaking gasoline storage tanks. MTBE is a gasoline additive intended to increase the oxygen level in gasoline and make it burn cleaner. The lawsuit was moved to federal court and consolidated into an existing multidistrict litigation docket of pending MTBE cases. This suit was settled for an immaterial amount in December 2017 and dismissed in January 2018.

In December 2017, the state of Maryland filed a lawsuit in Baltimore City Circuit Court against Duke Energy Merchants and other defendants alleging contamination of its water supplies from MTBE. The case was removed to the U.S. District Court in Baltimore. Duke Energy cannot predict the outcome of this matter.

ITEM 4. MINE SAFETY DISCLOSURES

This is not applicable for any of the Duke Energy Registrants.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The common stock of Duke Energy is listed and traded on the NYSE (ticker symbol DUK). As of January 31, 2019, there were 149,275 Duke Energy common stockholders of record. For information on dividends, see the "Dividend Payments" section of Management's Discussion and Analysis.

There is no market for the common equity securities of the Subsidiary Registrants, all of which are directly or indirectly owned by Duke Energy.

Securities Authorized for Issuance Under Equity Compensation Plans

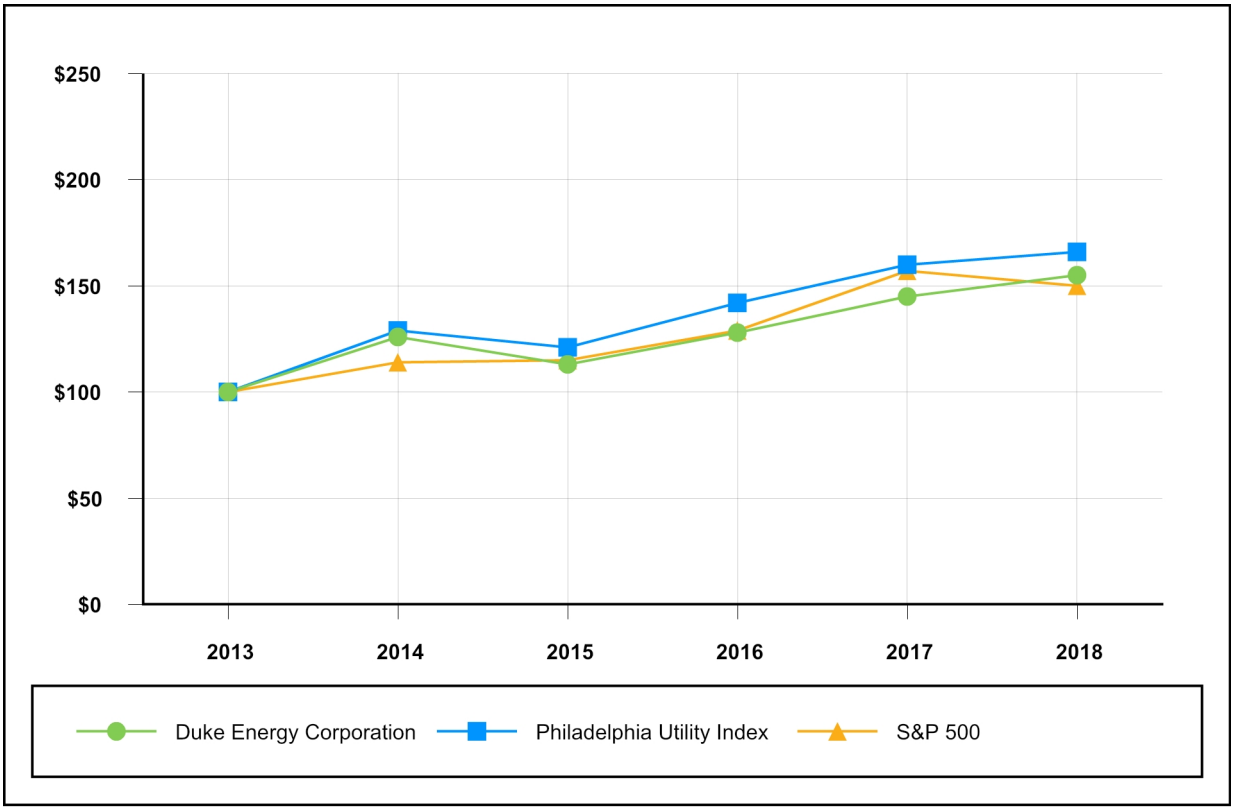
See Item 12 of Part III within this Annual Report for information regarding Securities Authorized for Issuance Under Equity Compensation Plans.

Issuer Purchases of Equity Securities for Fourth Quarter 2018

There were no repurchases of equity securities during the fourth quarter of 2018.

Stock Performance Graph

The following performance graph compares the cumulative total shareholder return from Duke Energy Corporation common stock, as compared with the S&P 500 and the Philadelphia Utility Index for the past five years. The graph assumes an initial investment of $100 on December 31, 2013, in Duke Energy common stock, in the S&P 500 and in the Philadelphia Utility Index and that all dividends were reinvested. The stockholder return shown below for the five-year historical period may not be indicative of future performance.



NYSE CEO Certification

Duke Energy has filed the certification of its Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 as exhibits to this Annual Report on Form 10-K for the year ended December 31, 2018.

ITEM 6. SELECTED FINANCIAL DATA

The following table provides selected financial data for the years of 2014 through 2018. See also Item 7.

(in millions, except per share amounts)	2018	2017	2016	2015	2014
Statements of Operations[a]					
Total operating revenues	**$ 24,521**	$ 23,565	$ 22,743	$ 22,371	$ 22,509
Operating income	**4,685**	5,625	5,202	4,974	4,795
Income from continuing operations	**2,625**	3,070	2,578	2,654	2,538
Income (Loss) from discontinued operations, net of tax	**19**	(6)	(408)	177	(649)
Net income	**2,644**	3,064	2,170	2,831	1,889
Net income attributable to Duke Energy Corporation	**2,666**	3,059	2,152	2,816	1,883
Common Stock Data					
Income from continuing operations attributable to Duke Energy Corporation common stockholders					
Basic	**$ 3.73**	$ 4.37	$ 3.71	$ 3.80	$ 3.58
Diluted	**3.73**	4.37	3.71	3.80	3.58
Income (Loss) from discontinued operations attributable to Duke Energy Corporation common stockholders					
Basic	**$ 0.03**	$ (0.01)	$ (0.60)	$ 0.25	$ (0.92)
Diluted	**0.03**	(0.01)	(0.60)	0.25	(0.92)
Net income attributable to Duke Energy Corporation common stockholders					
Basic	**$ 3.76**	$ 4.36	$ 3.11	$ 4.05	$ 2.66
Diluted	**3.76**	4.36	3.11	4.05	2.66
Dividends declared per share of common stock	**3.64**	3.49	3.36	3.24	3.15
Balance Sheet					
Total assets	**$ 145,392**	$ 137,914	$ 132,761	$ 121,156	$ 120,557
Long-term debt including capital leases, less current maturities	**51,123**	49,035	45,576	36,842	36,075

(a) Significant transactions reflected in the results above include: (i) regulatory and legislative charges related to Duke Energy Progress and Duke Energy Carolinas North Carolina rate case orders and impairment charges in 2018 (see Notes 4, 11 and 12 to the Consolidated Financial Statements, "Regulatory Matters," "Goodwill and Intangible Assets" and "Investments in Unconsolidated Affiliates"); (ii) the sale of the International Disposal Group in 2016, including a loss on sale recorded within discontinued operations (see Note 2 to the Consolidated Financial Statements, “Acquisitions and Dispositions”); (iii) the acquisition of Piedmont in 2016, including losses on interest rate swaps related to the acquisition financing (see Note 2); (iv) 2014 impairment related to the disposal of the Midwest Generation Disposal Group; (v) 2014 incremental tax expense resulting from the decision to repatriate all cumulative historical undistributed foreign earnings; (vi) 2014 increase in the litigation reserve related to a criminal investigation of the Dan River release.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Management's Discussion and Analysis includes financial information prepared in accordance with GAAP in the U.S., as well as certain non-GAAP financial measures such as adjusted earnings and adjusted earnings per share discussed below. Generally, a non-GAAP financial measure is a numerical measure of financial performance, financial position or cash flows that excludes (or includes) amounts that are included in (or excluded from) the most directly comparable measure calculated and presented in accordance with GAAP. The non-GAAP financial measures should be viewed as a supplement to, and not a substitute for, financial measures presented in accordance with GAAP. Non-GAAP measures as presented herein may not be comparable to similarly titled measures used by other companies.

The following combined Management's Discussion and Analysis of Financial Condition and Results of Operations is separately filed by Duke Energy Corporation (collectively with its subsidiaries, Duke Energy) and its subsidiaries Duke Energy Carolinas, LLC (Duke Energy Carolinas), Progress Energy, Inc. (Progress Energy), Duke Energy Progress, LLC (Duke Energy Progress), Duke Energy Florida, LLC (Duke Energy Florida), Duke Energy Ohio, Inc. (Duke Energy Ohio), Duke Energy Indiana, LLC (Duke Energy Indiana) and Piedmont Natural Gas Company, Inc. (Piedmont). However, none of the registrants make any representation as to information related solely to Duke Energy or the subsidiary registrants of Duke Energy other than itself. Subsequent to Duke Energy's acquisition of Piedmont on October 3, 2016, Piedmont is a wholly owned subsidiary of Duke Energy. The financial information for Duke Energy includes results of Piedmont subsequent to October 3, 2016. See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information regarding the acquisition.

DUKE ENERGY

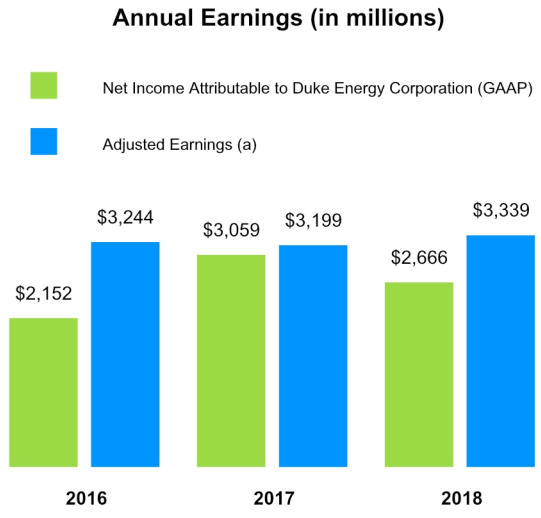
Duke Energy is an energy company headquartered in Charlotte, North Carolina. Duke Energy operates in the U.S. primarily through its wholly owned subsidiaries, Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont. When discussing Duke Energy's consolidated financial information, it necessarily includes the results of the Subsidiary Registrants, which along with Duke Energy, are collectively referred to as the Duke Energy Registrants.

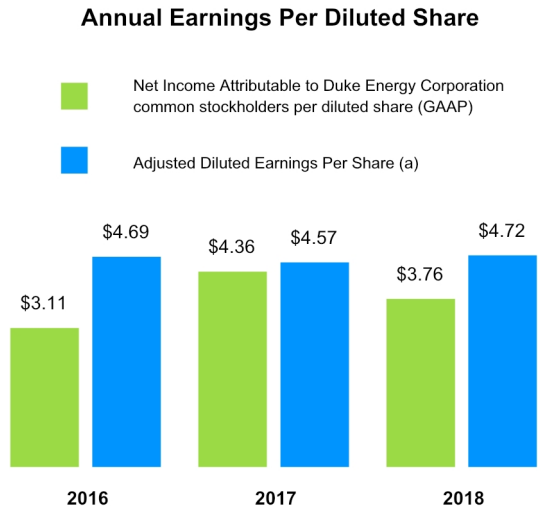
Management's Discussion and Analysis should be read in conjunction with the Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Executive Overview

At Duke Energy the fundamentals of our business are strong. In 2018, we met our near-term financial commitments and positioned the company for sustainable long-term growth. We are focused on a stable, predictable and regulated businesses portfolio to deliver a reliable dividend with 4 to 6 percent EPS growth through 2023. We have made progress advancing our long-term growth strategy that delivers value to our customers through investments in cleaner energy, grid modernization, natural gas infrastructure, and digital transformation, while also achieving constructive regulatory outcomes. The strength of our balance sheet is of vital importance to the cost-effective financing of our growth strategy, and in 2018 we took proactive steps to strengthen it by issuing $2 billion of equity.

Financial Results





(a) See Results of Operations below for Duke Energy's definition of adjusted earnings and adjusted diluted earnings per share as well as a reconciliation of this non-GAAP financial measure to net income attributable to Duke Energy and net income attributable to Duke Energy per diluted share.

Duke Energy's 2018 GAAP reported earnings were impacted by favorable weather, improved residential volumes and ongoing cost management efforts, offset by charges which management believes are not indicative of ongoing performance, including regulatory and legislative items, impairments, a loss on the sale of a retired plant, and severance. See "Results of Operations" below for a detailed discussion of the consolidated results of operations and a detailed discussion of financial results for each of Duke Energy's reportable business segments, as well as Other.

2018 Areas of Focus and Accomplishments

Operational Excellence and Reliability. The safety of our workforce is a core value. Our employees delivered strong safety results in 2018, and we maintained our industry-leading performance levels from 2016 and 2017. The reliable and safe operation of our power plants, electric distribution system and natural gas infrastructure is foundational to our customers, our financial results and our credibility with stakeholders. Our nuclear and fossil/hydro generation fleets demonstrated strong performance, exceeding their respective reliability targets. Five of our six nuclear sites have achieved INPO 1 status, the industry's highest distinction. Our electric distribution system performed well throughout the year, though we see opportunities to reduce outage durations.

Storm Response and System Restoration. 2018 was a year of intense storm activity, with Hurricane Florence and Hurricane Michael delivering a significant impact to our jurisdictions. Employees and utility partners worked tirelessly to restore 3 million outages during the hurricane season. Our team restored 93 percent of outages within five days during Hurricane Florence and 90 percent of outages within three days during Hurricane Michael. Our ability to effectively handle all facets of the 2018 storm response efforts is a testament to our team's extensive preparation and coordination in advance of the storm, applying lessons learned from previous storms, and on-the-ground management throughout the restoration efforts.

Customer Satisfaction. Duke Energy continues to transform the customer experience through our use of customer data to better inform operational priorities and performance levels. This data-driven approach allows us to identify the investments that are the most important to the customer experience. In 2018, we instituted more proactive communications, such as text alerts during outages, in response to customer expectations. Over time our work with data analytics will result in customer satisfaction improvement as measured through J.D. Power and other surveys.

Constructive Regulatory and Legislative Outcomes. One of our long-term strategic goals is to achieve modernized regulatory constructs in our jurisdictions. Modernized constructs provide benefits, which include improved earnings and cash flows through more timely recovery of investments, as well as stable pricing for customers. We achieved constructive regulatory outcomes in 2018 in North Carolina for both Duke Energy Carolinas and Duke Energy Progress, including the recovery of coal ash basin closure costs. The Ohio Comprehensive Settlement Agreement in 2018, approved by PUCO, was a favorable outcome that will enable the creation of a new PowerForward rider to recover costs associated with projects to modernize the grid and transform the customer experience. We are making progress in addressing tax reform across our jurisdictions, targeting solutions that provide benefits to customers and support the long-term credit quality of our utilities.

Cost Management and Efficiencies. Duke Energy has a demonstrated track record of driving efficiencies and productivity into the business, including merger integration and continuous improvement efforts. We continue to leverage new technology and data analytics to drive additional efficiencies across the business in response to a transforming landscape. In 2018, we established a digital transformation initiative that is tasked with identifying the best ways to use digital capabilities throughout our business.

Modernizing the Power Grid. Our grid improvement programs continue to be a key component of our growth strategy. Modernization of the electric grid, including smart meters, storm hardening, self-healing and targeted undergrounding helps to ensure the system is better prepared for severe weather, improves the system's reliability and flexibility, and provides better information and services for customers. Grid improvements enable successful storm response; for example, in the Carolinas, self-healing grid technologies rerouted power from damaged lines and systems to minimize outages. In 2018, we deployed 1.6 million smart meters resulting in 4.3 million customers having access to this technology across our regulated footprint.

Generating Cleaner Energy. We advanced efforts to generate cleaner energy, including progress on several strategic investments during 2018. Overall, we have lowered our carbon emissions by over 30 percent since 2005, consistent with our goal to reduce carbon emissions by 40 percent by 2030. Two natural gas plants came online in 2018 and construction continues on a third one. In our Commercial Renewable business, our Shoreham solar facility came online in 2018.

Expanding the Natural Gas Platform. We continue to pursue natural gas infrastructure investments. We are working diligently to construct the ACP pipeline to bring low-cost gas supply and economic development opportunities to the Mid-Atlantic. While we navigate the impacts of permitting delays and court rulings, we remain steadfast in our commitment to this backbone infrastructure for the southeast U.S. In 2018, Piedmont announced plans to construct a new liquefied natural gas facility in Robeson County North Carolina on property Piedmont already owns. This investment will help Piedmont provide a reliable gas supply to customers during peak usage periods. We expect to begin construction in the summer of 2019.

Dividend Growth. In 2018, Duke Energy continued to grow the dividend payment to shareholders by approximately 4 percent. 2018 represented the 92nd consecutive year Duke Energy paid a cash dividend on its common stock.

Duke Energy Objectives – 2019 and Beyond

Duke Energy will continue to deliver exceptional value to customers, be an integral part of the communities in which we do business, and provide attractive returns to investors. We have an achievable, long-term strategy in place and it is producing tangible results, yet the industry in which we operate is becoming more and more dynamic. We are adjusting, where necessary, and accelerating our focus in key areas to ensure the company is well positioned to be successful for many decades into the future. As we look ahead to 2019, our plans include:

- Continuing to place the customer at the center of all that we do.
- Advancing the achievement of modernized regulatory constructs across all jurisdictions, including consideration of cost recovery models that break the link between load growth and earnings.
- Improving and strengthening the energy grid to provide customers with more control, convenience and communications, and make the grid more resilient to severe weather and ever-evolving cyber threats.
- Investing in both natural gas generation and infrastructure to support our growing gas system, as we replace coal units and continue to expand our LDC customer base in the Carolinas and Midwest.
- Increasing renewables, energy storage and next-generation demand-side management into our supply/demand resource plans, in pursuit of a growth strategy that leverages these resources to provide choices that our customers value.
- Modernizing the way we plan and build our generation, transmission, distribution and customer systems in a fully integrated way through Integrated System and Operations Planning to accommodate increased distributed energy resources.
- Transforming the business using multiple levers, including digital tools, to increase productivity and reinvest the proceeds into new growth opportunities, improved customer service, and lower bills for customers.

Results of Operations

Non-GAAP Measures

Management evaluates financial performance in part based on non-GAAP financial measures, including adjusted earnings and adjusted diluted EPS. These items represent income from continuing operations attributable to Duke Energy, adjusted for the dollar and per share impact of special items. As discussed below, special items include certain charges and credits, which management believes are not indicative of Duke Energy's ongoing performance. Management believes the presentation of adjusted earnings and adjusted diluted EPS provides useful information to investors, as it provides them with an additional relevant comparison of Duke Energy’s performance across periods.

Management uses these non-GAAP financial measures for planning and forecasting, and for reporting financial results to the Board of Directors, employees, stockholders, analysts and investors. Adjusted diluted EPS is also used as a basis for employee incentive bonuses. The most directly comparable GAAP measures for adjusted earnings and adjusted diluted EPS are GAAP Reported Earnings and GAAP Reported EPS, respectively.

Special items included in the periods presented include the following, which management believes do not reflect ongoing costs:

- Costs to Achieve Mergers represents charges that result from strategic acquisitions.
- Regulatory and Legislative Impacts in 2018 represents charges related to the Duke Energy Progress and Duke Energy Carolinas North Carolina rate case orders and the repeal of the South Carolina Base Load Review Act. For 2017, it represents charges related to the Levy nuclear project in Florida and the Mayo Zero Liquid Discharge and Sutton combustion turbine projects in North Carolina.
- Impairment Charges in 2018 represents an impairment at Citrus County CC, a goodwill impairment at Commercial Renewables and an other-than-temporary impairment of an investment in Constitution Pipeline Company, LLC. For 2017 and 2016, the charges represent goodwill and other-than-temporary asset impairments at Commercial Renewables.
- Sale of Retired Plant represents the loss associated with selling Beckjord, a nonregulated generating facility in Ohio.
- Impacts of the Tax Act represents amounts recognized related to the Tax Act.
- Severance Charges relate to companywide initiatives, excluding merger integration, to standardize processes and systems, leverage technology and workforce optimization.

Adjusted earnings also include the operating results of the International Disposal Group, which has been classified as discontinued operations. Management believes inclusion of the operating results of the International Disposal Group within adjusted earnings and adjusted diluted EPS results in a better reflection of Duke Energy's financial performance during the period.

Duke Energy’s adjusted earnings and adjusted diluted EPS may not be comparable to similarly titled measures of another company because other companies may not calculate the measures in the same manner.

Reconciliation of GAAP Reported Amounts to Adjusted Amounts

The following table presents a reconciliation of adjusted earnings and adjusted diluted EPS to the most directly comparable GAAP measures.

	Years Ended December 31,					
	2018		2017		2016	
(in millions, except per share amounts)	Earnings	EPS	Earnings	EPS	Earnings	EPS
GAAP Reported Earnings/EPS	**$ 2,666**	**$ 3.76**	$ 3,059	$ 4.36	$ 2,152	$ 3.11
Adjustments to Reported:						
Costs to Achieve Mergers[(a)]	**65**	**0.09**	64	0.09	329	0.48
Regulatory and Legislative Impacts[(b)]	**202**	**0.29**	98	0.14	—	—
Impairment Charges[(c)]	**179**	**0.25**	74	0.11	45	0.07
Sale of Retired Plant[(d)]	**82**	**0.12**	—	—	—	—
Impacts of the Tax Act[(e)]	**20**	**0.03**	(102)	(0.14)	—	—
Severance Charges[(f)]	**144**	**0.21**	—	—	57	0.08
Discontinued Operations[(g)]	**(19)**	**(0.03)**	6	0.01	661	0.95
Adjusted Earnings/Adjusted Diluted EPS	**$ 3,339**	**$ 4.72**	$ 3,199	$ 4.57	$ 3,244	$ 4.69

(a) Net of tax benefit of $19 million in 2018, $39 million in 2017, and $194 million in 2016.
(b) Net of tax benefit of $63 million in 2018 and $60 million in 2017.
(c) Net of $27 million tax benefit and $2 million Noncontrolling Interests in 2018. Net of $28 million tax benefit in 2017 and $26 million in 2016.
(d) Net of $25 million tax benefit.
(e) The Tax Act reduced the corporate income tax rate from 35 to 21 percent, effective January 1, 2018. As the tax change was enacted in 2017, Duke Energy was required to remeasure its existing deferred tax assets and liabilities at the lower rate at December 31, 2017. For Duke Energy's regulated operations, where the reduction in the net accumulated deferred income tax liability is expected to be returned to customers in future rates, the remeasurement has been deferred as a regulatory liability. For 2018, the amount represents a true up of existing regulatory liabilities related to the Tax Act. See Note 23 to the Consolidated Financial Statements, "Income Taxes" for more information.
(f) Net of tax benefit of $43 million in 2018 and $35 million in 2016.
(g) For 2016, includes a loss on sale of the International Disposal Group. Represents the GAAP reported Loss from Discontinued Operations, less the International Disposal Group operating results, which are included in adjusted earnings. For 2017 and 2018, amounts reflect adjustments related to the sale of the International Disposal Group, primarily related to estimated tax expense.

Year Ended December 31, 2018, as compared to 2017

Duke Energy’s full-year 2018 GAAP Reported EPS was $3.76 compared to $4.36 for full-year 2017. In addition to the adjusted diluted EPS drivers discussed below, GAAP Reported EPS in 2018 was lower primarily due to regulatory and legislative impacts, impairment charges, severance charges and a loss on sale of a retired plant.

As discussed, management also evaluates financial performance based on adjusted earnings. Duke Energy’s full-year 2018 adjusted diluted EPS was $4.72 compared to $4.57 for full-year 2017. The increase in adjusted diluted EPS was primarily due to:

- Higher regulated electric revenues due to favorable weather and higher retail sales volumes in the current year;
- Positive impacts from the North Carolina rate case orders; and
- Rider growth.

Partially offset by:

- Higher interest expense due to higher debt outstanding and higher interest rates;
- Higher depreciation and amortization expense at Electric Utilities and Infrastructure primarily due to rate base growth; and
- A reduced tax benefit on holding company interest as a result of the Tax Act.

Year Ended December 31, 2017, as compared to 2016

Duke Energy’s full-year 2017 GAAP Reported EPS was $4.36 compared to $3.11 for full-year 2016. In addition to the adjusted diluted EPS drivers discussed below, GAAP Reported EPS in 2017 was higher primarily due to a $0.14 benefit per share related to the Tax Act in 2017, lower costs to achieve the Piedmont merger and a loss on sale and impairments associated with the sale of the International Disposal Group in 2016, partially offset by charges of $0.14 related to regulatory settlements in Electric Utilities and Infrastructure.

As discussed, management also evaluates financial performance based on adjusted earnings. Duke Energy’s full-year 2017 adjusted diluted EPS was $4.57 compared to $4.69 for full-year 2016. The decrease in adjusted diluted EPS was primarily due to:

- Lower regulated electric revenues due to less favorable weather in the current year, including lost revenues related to Hurricane Irma;

- The prior year operating results from the International Disposal Group, which was sold in December 2016. The 2016 operating results included a benefit from the valuation of deferred income taxes. See Note 23 to the Consolidated Financial Statements, "Income Taxes," for additional information;
- Higher financing costs, primarily due to the Piedmont acquisition; and
- Higher depreciation and amortization expense at Electric Utilities and Infrastructure primarily due to higher depreciable base.

Partially offset by:

- Higher regulated electric revenues from increased pricing and riders driven by new rates in Duke Energy Progress South Carolina, base rate adjustments in Florida and energy efficiency rider revenues in North Carolina, as well as growth in weather-normal retail volumes;
- Lower operations, maintenance and other expenses, net of amounts recoverable in rates, at Electric Utilities and Infrastructure resulting from ongoing cost efficiency efforts and lower year-to-date storm costs than the prior year; and
- Additional earnings from incremental investments in ACP and Sabal Trail natural gas pipelines.

SEGMENT RESULTS

The remaining information presented in this discussion of results of operations is on a GAAP basis. Management evaluates segment performance based on segment income. Segment income is defined as income from continuing operations net of income attributable to noncontrolling interests. Segment income includes intercompany revenues and expenses that are eliminated in the Consolidated Financial Statements.

Duke Energy's segment structure includes the following segments: Electric Utilities and Infrastructure, Gas Utilities and Infrastructure and Commercial Renewables. The remainder of Duke Energy's operations is presented as Other. See Note 3 to the Consolidated Financial Statements, "Business Segments," for additional information on Duke Energy's segment structure.

The Tax Act

On December 22, 2017, President Trump signed the Tax Act into law. Among other provisions, the Tax Act lowered the corporate federal income tax rate from 35 to 21 percent, limits interest deductions outside of regulated utility operations, requires the normalization of excess deferred taxes associated with property under the average rate assumption method as a prerequisite to qualifying for accelerated depreciation and repealed the federal manufacturing deduction. The Tax Act also repealed the corporate AMT and stipulates a refund of 50 percent of remaining AMT credit carryforwards (to the extent the credits exceed regular tax for the year) for tax years 2018, 2019 and 2020 with all remaining AMT credits to be refunded in tax year 2021.

As a result of the Tax Act, Duke Energy revalued its existing deferred tax assets and deferred tax liabilities as of December 31, 2017, to account for the estimated future impact of lower corporate tax rates on these deferred tax amounts. During the year ended December 31, 2018, Duke Energy recorded measurement period adjustments to the provisional estimate recorded as of December 31, 2017, in accordance with SAB 118. For Duke Energy's regulated operations, where the net reduction in the net accumulated deferred income tax liability is expected to be returned to customers in future rates, the remeasurement has been deferred as a regulatory liability. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information on the Tax Act's impact to the regulatory asset and liability accounts. The following table shows the expense (benefit) recorded on Duke Energy's Consolidated Statements of Operations.

	Years Ended December 31,	
(in millions)	**2018**	**2017**
Electric Utilities and Infrastructure[(c)]	**$ 24**	$ (231)
Gas Utilities and Infrastructure[(d)(e)]	**1**	(26)
Commercial Renewables	**(3)**	(442)
Other[(f)]	**(2)**	597
Total impact of the Tax Act[(a)(b)(d)]	**$ 20**	$ (102)

(a) Except where noted below, amounts are included within Income Tax Expense From Continuing Operations on the Consolidated Statements of Operations.
(b) See Notes 4 and 23 to the Consolidated Financial Statements, "Regulatory Matters" and "Income Taxes," respectively, for information about the Tax Act's impact on Duke Energy's Consolidated Balance Sheets.
(c) Amount primarily relates to the 2017 remeasurement, and true up of that remeasurement in 2018, of net deferred tax liabilities that are excluded for ratemaking purposes related to abandoned or impaired assets and certain wholesale fixed rate contracts.
(d) 2017 amount includes a $16 million expense recorded within Equity in earnings (losses) of unconsolidated affiliates on the Consolidated Statement of Operations.
(e) 2017 amount primarily relates to the remeasurement of net deferred tax liabilities related to equity method investments.
(f) 2017 amount primarily relates to the remeasurement of Foreign Tax Credits, federal NOLs and nonregulated deferred tax assets.

Electric Utilities and Infrastructure

(in millions)	Years Ended December 31, 2018	2017	Variance 2018 vs. 2017	2016	Variance 2017 vs. 2016
Operating Revenues	**$ 22,273**	$ 21,331	$ 942	$ 21,366	$ (35)
Operating Expenses					
Fuel used in electric generation and purchased power	**6,917**	6,379	538	6,595	(216)
Operations, maintenance and other	**5,631**	5,360	271	5,433	(73)
Depreciation and amortization	**3,523**	3,010	513	2,897	113
Property and other taxes	**1,134**	1,079	55	1,021	58
Impairment charges	**309**	176	133	16	160
Total operating expenses	**17,514**	16,004	1,510	15,962	42
Gains on Sales of Other Assets and Other, net	**8**	6	2	—	6
Operating Income	**4,767**	5,333	(566)	5,404	(71)
Other Income and Expenses, net	**378**	472	(94)	444	28
Interest Expense	**1,288**	1,240	48	1,136	104
Income Before Income Taxes	**3,857**	4,565	(708)	4,712	(147)
Income Tax Expense	**799**	1,355	(556)	1,672	(317)
Segment Income	**$ 3,058**	$ 3,210	$ (152)	$ 3,040	$ 170
Duke Energy Carolinas Gigawatt-hours (GWh) sales	**92,280**	87,305	4,975	88,545	(1,240)
Duke Energy Progress GWh sales	**69,331**	66,822	2,509	69,049	(2,227)
Duke Energy Florida GWh sales	**41,559**	40,591	968	40,404	187
Duke Energy Ohio GWh sales	**25,329**	24,639	690	25,163	(524)
Duke Energy Indiana GWh sales	**34,229**	33,145	1,084	34,368	(1,223)
Total Electric Utilities and Infrastructure GWh sales	**262,728**	252,502	10,226	257,529	(5,027)
Net proportional MW capacity in operation	**49,684**	48,828	856	49,295	(467)

Year Ended December 31, 2018, as compared to 2017

Electric Utilities and Infrastructure's results were impacted by higher legislative and regulatory charges compared to the prior year and higher depreciation from a growing asset base, partially offset by favorable weather in the current year, improved retail volumes, lower income tax expense and a positive net contribution from the Duke Energy Progress and Duke Energy Carolinas North Carolina rate cases. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The variance was driven primarily by:

- a $577 million increase in fuel related revenues due to higher sales volumes driven primarily by favorable weather in the current year, and increases in fuel rates billed to customers, which reflects higher average fuel prices;
- a $331 million increase in retail sales, net of fuel revenues, due to favorable weather in the current year;
- a $236 million increase in retail pricing primarily due to the Duke Energy Progress and Duke Energy Carolinas North Carolina rate cases and Duke Energy Florida base rate adjustments related to generation assets being placed into service;
- a $109 million increase in wholesale power revenues, net of fuel, primarily due to higher recovery of coal ash costs at Duke Energy Progress and Duke Energy Carolinas, partially offset by contracts that expired in the prior year at Duke Energy Indiana and customer refunds in the current year at Duke Energy Carolinas related to a FERC order on a complaint filed by PMPA;
- an $82 million increase in weather-normal retail sales volumes driven by residential growth;
- a $73 million net increase in retail rider revenues, primarily related to capital investment riders at Duke Energy Indiana and Duke Energy Ohio, partially offset by a net decrease in rider revenues related to the implementation of new base rates at Duke Energy Carolinas and Duke Energy Progress; and
- a $49 million increase in other revenues at Duke Energy Carolinas primarily due to the recognition of previously deferred revenues associated with storm restoration costs in South Carolina and favorable transmission revenues.

Partially offset by:

- a $578 million decrease in retail and wholesale sales due to revenues subject to refund to customers associated with the lower statutory federal corporate tax rate under the Tax Act.

Operating Expenses. The variance was driven primarily by:

- a $538 million increase in fuel used in electric generation and purchased power due to higher sales and higher amortization of deferred fuel expenses;
- a $513 million increase in depreciation and amortization expense primarily due to higher amortization of deferred coal ash costs, additional plant in service and new depreciation rates associated with the Duke Energy Progress and Duke Energy Carolinas North Carolina rate cases;
- a $271 million increase in operation, maintenance and other expense primarily due to impacts associated with the Duke Energy Progress North Carolina rate case and higher storm costs, partially offset by a FERC approved settlement refund of certain transmission costs previously billed by PJM; and
- a $133 million increase in impairment charges primarily due to the impacts associated with the Duke Energy Carolinas and Duke Energy Progress North Carolina rates cases and the Duke Energy Florida Citrus County CC impairments in the current year, offset by the write-off of remaining unrecovered Levy Nuclear project costs at Duke Energy Florida in the prior year.

Other Income and Expenses, net. The decrease was primarily due to lower post in-service equity returns for projects that had been completed prior to being reflected in customer rates at Duke Energy Carolinas and lower income from non-service components of employee benefit costs in the current year at Duke Energy Progress and Duke Energy Florida. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans."

Interest Expense. The variance was due to higher debt outstanding in the current year, partially offset by lower deferred debt costs on major projects.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act, a decrease in pretax income and the impact of the Tax Act in the prior year. The ETRs for the years ended December 31, 2018, and 2017 were 20.7 percent and 29.7 percent, respectively. The decrease in the ETR was primarily due to the lower statutory federal corporate tax rate under the Tax Act and the amortization of excess deferred taxes partially offset by the impact of the Tax Act in the prior year. See the Tax Act section above for additional information.

Year Ended December 31, 2017, as compared to 2016

Electric Utilities and Infrastructure's results were impacted by the Tax Act, growth from investments, lower operations and maintenance expense and higher weather-normal retail sales volumes, partially offset by less favorable weather, impairment charges due to regulatory settlements, increased depreciation and amortization, higher interest expense and higher property and other taxes. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The variance was driven primarily by:

- a $292 million decrease in retail sales, net of fuel revenue, due to less favorable weather in the current year; and
- a $235 million decrease in fuel revenues driven by lower retail sales volumes, lower fuel prices included in rates and changes in the generation mix.

Partially offset by:

- a $364 million increase in rider revenues including increased revenues related to energy efficiency programs, Duke Energy Florida’s nuclear asset securitization, Midwest transmission and distribution capital investments and Duke Energy Indiana’s Edwardsport IGCC plant, as well as an increase in retail pricing due to base rate adjustments for Duke Energy Florida’s Osprey acquisition and Hines Chillers and the Duke Energy Progress South Carolina rate case;
- an $86 million increase in weather-normal sales volumes to customers; and
- a $26 million increase in other revenues primarily due to favorable transmission revenues.

Operating Expenses. The variance was driven primarily by:

- a $160 million increase in impairment charges primarily due to the write-off of remaining unrecovered Levy Nuclear Project costs in the current year at Duke Energy Florida and the disallowance from rate base of certain projects at the Mayo and Sutton plants in the current year at Duke Energy Progress related to the partial settlement in the North Carolina rate case;
- a $113 million increase in depreciation and amortization expense primarily due to additional plant in service; and
- a $58 million increase in property and other taxes primarily due to higher property taxes.

Partially offset by:

- a $216 million decrease in fuel expense (including purchased power) primarily due to lower retail sales and changes in the generation mix; and
- a $73 million decrease in operation, maintenance and other expense primarily due to lower plant outage, storm restoration and labor and benefits costs partially offset by higher operational costs that are recoverable in rates.

Interest Expense. The variance was due to higher debt outstanding in the current year and Duke Energy Florida's Crystal River Unit 3 regulatory asset debt return ending in June 2016 upon securitization.

Income Tax Expense. The variance was primarily due to a decrease in pretax income and the impact of the Tax Act. The effective tax rates for the years ended December 31, 2017, and 2016 were 29.7 percent and 35.5 percent, respectively. The decrease in the effective tax rate was primarily due to the impact of the Tax Act. See the Tax Act section above for additional information.

Matters Impacting Future Electric Utilities and Infrastructure Results

On May 18, 2016, the NCDEQ issued proposed risk classifications for all coal ash surface impoundments in North Carolina. All ash impoundments not previously designated as high priority by the Coal Ash Act were designated as intermediate risk. Certain impoundments classified as intermediate risk, however, were eligible for reassessment as low risk pursuant to legislation enacted on July 14, 2016. On November 14, 2018, NCDEQ issued final low-risk classifications for these impoundments, indicating that Duke Energy Carolinas and Duke Energy Progress have satisfied the permanent replacement water supply and certain dam improvement requirements set out in the Coal Ash Management Act. As the final closure plans and corrective action measures are developed and approved for each site, the closure work progresses and the closure method scope and remedial action methods are determined, the complexity of work and the amount of coal combustion material could be different than originally estimated and, therefore, could materially impact Electric Utilities and Infrastructure's results of operations, financial position and cash flows. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations," for additional information.

Duke Energy is a party to multiple lawsuits and could be subject to fines and other penalties related to operations at certain North Carolina facilities with ash basins. In addition, the orders issued in the Duke Energy Carolinas and Duke Energy Progress North Carolinas rate cases supporting recovery of past coal ash remediation costs have been appealed by various parties. The outcome of these appeals, lawsuits and potential fines and penalties could have an adverse impact on Electric Utilities and Infrastructure's results of operations, financial position, and cash flows. See Notes 4 and 5 to the Consolidated Financial Statements, "Regulatory Matters" and “Commitments and Contingencies,” respectively, for additional information.

On June 22, 2018, Duke Energy Carolinas received an order from the NCUC, which denied the Grid Rider Stipulation and deferral treatment of grid improvement costs. Duke Energy Carolinas may petition for deferral of grid modernization costs outside of a general rate case proceeding if it can show financial hardship or a stipulation that includes greater consensus among intervening parties on costs being classified as grid modernization. While Duke Energy Progress did not request recovery of these costs in its most recent case with the NCUC, Duke Energy Progress may request recovery of certain grid modernization costs in future regulatory proceedings. Electric Utilities and Infrastructure's results of operations, financial position and cash flows could be adversely impacted if grid modernization costs are not ultimately approved for recovery and/or deferral treatment. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

During the last half of 2018, Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida’s service territories were impacted by several named storms. Hurricane Florence, Hurricane Michael and Winter Storm Diego caused flooding, extensive damage and widespread power outages to the service territories of Duke Energy Carolinas and Duke Energy Progress. Duke Energy Florida’s service territory was also impacted by Hurricane Michael, a Category 4 hurricane and the most powerful storm to hit the Florida Panhandle in recorded history. A significant portion of the incremental operation and maintenance expenses related to these storms have been deferred. On December 21, 2018, Duke Energy Carolinas and Duke Energy Progress filed with the NCUC petitions for approval to defer the incremental storm costs incurred to a regulatory asset for recovery in the next base rate case. Duke Energy Progress filed a similar request with the PSCSC on January 11, 2019, which also included a request for the continuation of prior deferrals requested for other storms, and on January 30, 2019, the PSCSC issued a directive approving the deferral request. Duke Energy Florida anticipates filing a petition in the first half of 2019 with the FPSC to recover incremental storm costs consistent with the provisions in its 2017 Settlement. An order from regulatory authorities disallowing the deferral and future recovery of storm restoration costs could have an adverse impact on Electric Utilities and Infrastructure's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Appeals of recently approved rate cases for Duke Energy Carolinas and Duke Energy Progress are pending at the North Carolina Supreme Court. The North Carolina Attorney General and various intervenors primarily dispute the allowance of recovery of coal ash costs from customers, which was approved by the NCUC. The outcome of these appeals could have an adverse impact to Electric Utilities and Infrastructure's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

On February 6, 2018, the FPSC approved a stipulation that would apply tax savings resulting from the Tax Act toward storm costs effective January 2018 in lieu of implementing a storm surcharge. On May 31, 2018, Duke Energy Florida filed for recovery of the storm costs. Storm costs are currently expected to be fully recovered by approximately mid-2021. The commission has scheduled the hearing to begin on May 21, 2019. An order disallowing recovery of these costs could have an adverse impact on Electric Utilities and Infrastructure's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

Gas Utilities and Infrastructure

	Years Ended December 31,				
(in millions)	2018	2017	Variance 2018 vs. 2017	2016	Variance 2017 vs. 2016
Operating Revenues	**$ 1,881**	$ 1,836	$ 45	$ 901	$ 935
Operating Expenses					
Cost of natural gas	**697**	632	65	265	367
Operation, maintenance and other	**421**	383	38	184	199
Depreciation and amortization	**245**	231	14	115	116
Property and other taxes	**107**	106	1	70	36
Total operating expenses	**1,470**	1,352	118	634	718
(Loss) Gains on Sales of Other Assets and Other, net	**—**	—	—	(1)	1
Operating Income	**411**	484	(73)	266	218
Other Income and Expenses, net	**47**	56	(9)	22	34
Interest Expense	**106**	105	1	46	59
Income Before Income Taxes	**352**	435	(83)	242	193
Income Tax Expense	**78**	116	(38)	90	26
Segment Income	**$ 274**	$ 319	$ (45)	$ 152	$ 167
Piedmont LDC throughput (dekatherms)[(a)]	**557,145,128**	468,259,777	88,885,351	120,908,508	347,351,269
Duke Energy Midwest LDC throughput (MCF)	**90,604,833**	80,934,836	9,669,997	81,870,489	(935,653)

(a) Includes throughput subsequent to Duke Energy's acquisition of Piedmont on October 3, 2016.

Year Ended December 31, 2018, as compared to 2017

Gas Utilities and Infrastructure's results were primarily impacted by the OTTI recorded on the Constitution investment and higher operation, maintenance and other expenses, partially offset by favorable price adjustments, customer growth and other income. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The variance was driven primarily by:

- a $76 million increase primarily due to higher natural gas costs passed through to customers as a result of higher volumes sold driven primarily by weather and higher natural gas prices; and
- a $37 million increase primarily due to residential and commercial customer revenue, net of natural gas costs passed through to customers, due to customer growth and IMR rate adjustments and new power generation customers.

Partially offset by:

- a $69 million decrease primarily due to revenues subject to refund to customers associated with the lower statutory corporate tax rate under the Tax Act.

Operating Expenses. The variance was driven primarily by:

- a $65 million increase in natural gas costs primarily due to higher costs passed through to customers, as a result of a higher natural gas prices;
- a $38 million increase in operations, maintenance, and other expense primarily due to increased shared services, costs to achieve merger expenses and a pension settlement charge at Piedmont in 2017; and
- a $14 million increase in depreciation and amortization expense due to additional plant in service and higher amortization of software costs.

Other Income and Expenses, net. The variance was driven primarily by:

- a $55 million impairment recorded for the investment in Constitution in 2018.

Partially offset by:

- a $25 million increase in non-service components of employee benefit costs in 2018. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans"; and

- a $20 million increase in equity earnings from pipeline investments.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act, a decrease in pretax income and the impact of the Tax Act in the prior year. The ETRs for the years ended December 31, 2018, and 2017 were 22.2 percent and 26.7 percent, respectively. The decrease in the ETR was primarily due to the lower statutory federal corporate tax rate under the Tax Act partially offset by the impact of the Tax Act in the prior year. See the Tax Act section above for additional information.

Year Ended December 31, 2017, as compared to 2016

Gas Utilities and Infrastructure's higher results were primarily due to the inclusion of Piedmont's earnings in the current year as a result of Duke Energy's acquisition of Piedmont on October 3, 2016, as well as additional equity earnings from investments in the ACP and Sabal Trail pipelines.

Operating Revenues. The variance was driven primarily by:

- an $884 million increase in operating revenues due to the inclusion of Piedmont's operating revenues beginning in October 2016; and
- a $47 million increase in Piedmont's fourth quarter results due to colder weather, higher natural gas prices, IMR rate adjustments, customer growth and new power generation customers.

Operating Expenses. The variance was driven primarily by:

- a $686 million increase in operating expenses due to the inclusion of Piedmont's operating expenses beginning in October 2016; and
- a $34 million increase in Piedmont's fourth quarter results primarily due to higher natural gas costs passed through to customers due to the higher price per dekatherm of natural gas.

Other Income and Expenses, net. The increase was driven primarily by higher equity earnings from pipeline investments.

Interest Expense. The variance was primarily due to the inclusion of Piedmont's interest expense beginning in October 2016.

Income Tax Expense. The variance was primarily due to an increase in pretax income due to the inclusion of Piedmont's earnings beginning in October 2016, partially offset by prior period true ups. The effective tax rates for the years ended December 31, 2017, and 2016 were 26.7 percent and 37.2 percent, respectively. The decrease in the effective tax rate was primarily due to the prior period true ups and the impact of the Tax Act. See the Tax Act section above for additional information.

Matters Impacting Future Gas Utilities and Infrastructure Results

Gas Utilities and Infrastructure has a 47 percent ownership interest in ACP, which is building an approximately 600-mile interstate natural gas pipeline intended to transport diverse natural gas supplies into southeastern markets. Affected states (West Virginia, Virginia and North Carolina) have issued certain necessary permits; the project remains subject to other pending federal and state approvals, which will allow full construction activities to begin. In 2018, FERC issued a series of Notices to Proceed, which authorized the project to begin certain construction-related activities along the pipeline route. Project cost estimates are a range of $7.0 billion to $7.8 billion, excluding financing costs. ACP expects to achieve a late 2020 in-service date for key segments of the project, while it expects a remainder to extend into 2021. Project construction activities, schedule and final costs are subject to uncertainty due to abnormal weather, work delays (including delays due to judicial or regulatory action) and other conditions and risks that could result in potential higher project costs, a potential delay in the targeted in-service dates and potential impairment charges. ACP and Duke Energy will continue to consider their options with respect to the foregoing in light of their existing contractual and legal obligations. See Notes 4 and 12 to the Consolidated Financial Statements, "Regulatory Matters" and "Investments in Unconsolidated Affiliates," respectively, for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

Commercial Renewables

(in millions)	Years Ended December 31, 2018	2017	Variance 2018 vs. 2017	2016	Variance 2017 vs. 2016
Operating Revenues	**$ 477**	$ 460	$ 17	$ 484	$ (24)
Operating Expenses					
Operation, maintenance and other	**304**	267	37	337	(70)
Depreciation and amortization	**155**	155	—	130	25
Property and other taxes	**25**	33	(8)	25	8
Impairment charges	**93**	99	(6)	—	99
Total operating expenses	**577**	554	23	492	62
(Loss) Gains on Sales of Other Assets and Other, net	**(1)**	1	(2)	5	(4)
Operating Loss	**(101)**	(93)	(8)	(3)	(90)
Other Income and Expenses, net	**23**	(12)	35	(83)	71
Interest Expense	**88**	87	1	53	34
Loss Before Income Taxes	**(166)**	(192)	26	(139)	(53)
Income Tax Benefit	**(147)**	(628)	481	(160)	(468)
Less: Loss Attributable to Noncontrolling Interests	**(28)**	(5)	(23)	(2)	(3)
Segment Income	**$ 9**	$ 441	$ (432)	$ 23	$ 418
Renewable plant production, GWh	**8,522**	8,260	262	7,446	814
Net proportional MW capacity in operation[(a)]	**2,991**	2,907	84	2,892	15

(a) Certain projects are included in tax-equity structures where investors have differing interests in the project's economic attributes. In 2018, 100 percent of the tax-equity project's capacity is included in the table above.

Year Ended December 31, 2018, as compared to 2017

Commercial Renewables' results were unfavorably impacted by the higher tax benefit in 2017 from the Tax Act. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The increase in revenues was primarily due to an increase in the number of EPC agreements at REC Solar, partially offset by unfavorable wind portfolio revenue.

Operating Expenses. The increase in operating expenses was primarily due to an increase in the number of EPC agreements at REC Solar, higher wind portfolio expenses and higher solar development costs, partially offset by lower property taxes due to non-recurring property tax payments made in the prior year and lower impairment charges.

Other Income and Expenses, net. The favorable variance in other income and expenses was primarily due to the bankruptcy court approved NAW and FES settlement agreement, which allowed retention of previously collected cash collateral under the PPAs, sale of the FES unsecured claim, impairment of certain cost investments in the prior year and lower equity losses in the current year.

Income Tax Benefit. The decrease in tax benefit in 2018 was primarily due to the one-time impact of the Tax Act in 2017 and lower statutory federal corporate tax rate under the Tax Act. See the Tax Act section above for additional information.

Loss Attributable to Noncontrolling Interests. The increase is primarily driven by the new tax-equity structures entered into during 2018.

Year Ended December 31, 2017, as compared to 2016

Commercial Renewables' higher earnings were primarily due to the Tax Act, partially offset by pretax impairment charges. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The decrease was primarily due to lower EPC revenues from REC Solar.

Operating Expenses. The increase was primarily due to a $99 million in pretax impairment charges in 2017 related to a wholly owned non-contracted wind project and other investments and higher expenses associated with new wind and solar projects, partially offset by lower operations and maintenance expense at REC Solar due to fewer projects under construction. See Notes 10 and 11 to the Consolidated Financial Statements, “Property, Plant and Equipment” and “Goodwill and Intangible Assets,” respectively, for additional information.

Other Income and Expenses, net. The variance was primarily due to a $71 million pretax impairment charge in 2016 related to certain equity method investments. For additional information, see Note 12 to the Consolidated Financial Statements, “Investments in Unconsolidated Affiliates.”

Interest Expense. The variance was primarily due to new project financings and less capitalized interest due to fewer projects under construction.

Income Tax Benefit. The variance was primarily due to the impact of the Tax Act and higher PTCs, partially offset by lower ITCs. See the Tax Act section above for additional information on the Tax Act and the impact on the effective tax rate.

Matters Impacting Future Commercial Renewables Results

Persistently low market pricing for wind resources, primarily in the Electric Reliability Council of Texas West and PJM West markets and the future expiration of tax incentives including ITCs and PTCs could result in adverse impacts to the future results of operations, financial position and cash flows of Commercial Renewables.

On September 26, 2018, Duke Energy announced it is seeking a minority investor for the commercial renewables business. Duke Energy will continue to develop projects, grow its portfolio and manage its renewables assets. Duke Energy Renewable Services, an operations and maintenance business for third-party customers, and REC Solar are not included in the potential transaction. A sale of a minority interest is dependent on a number of factors and cannot be predicted at this time.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

Other

	Years Ended December 31,				
(in millions)	2018	2017	Variance 2018 vs. 2017	2016	Variance 2017 vs. 2016
Operating Revenues	**$ 89**	$ 138	$ (49)	$ 117	$ 21
Operating Expenses					
Fuel used in electric generation and purchased power	**—**	58	(58)	51	7
Operation, maintenance and other	**214**	46	168	371	(325)
Depreciation and amortization	**152**	131	21	152	(21)
Property and other taxes	**14**	14	—	28	(14)
Impairment charges	**—**	7	(7)	2	5
Total operating expenses	**380**	256	124	604	(348)
(Losses) Gains on Sales of Other Assets and Other, net	**(96)**	21	(117)	23	(2)
Operating Loss	**(387)**	(97)	(290)	(464)	367
Other Income and Expenses, net	**73**	129	(56)	75	54
Interest Expense	**657**	574	83	693	(119)
Loss Before Income Taxes	**(971)**	(542)	(429)	(1,082)	540
Income Tax (Benefit) Expense	**(282)**	353	(635)	(446)	799
Less: Net Income Attributable to Noncontrolling Interests	**5**	10	(5)	9	1
Net Loss	**$ (694)**	$ (905)	$ 211	$ (645)	$ (260)

Year Ended December 31, 2018, as compared to 2017

Other's lower net loss was driven by prior year impacts from the Tax Act, partially offset by severance charges, loss on the sale of the retired Beckjord station, higher interest expense and prior year proceeds resulting from the settlement of the shareholder litigation related to the Progress Energy merger. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The decrease was primarily due to prior year revenues related to Duke Energy Ohio's entitlement of capacity and energy from OVEC's power plants. For the year ended December 31, 2018, the revenues and related expenses for OVEC are reflected in the Electric Utilities and Infrastructure segment due to the PUCO Order that approved Duke Energy to recover or credit amounts through Rider PSR. These amounts are deemed immaterial. Therefore, no prior period amounts were restated. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters" for additional information.

Operating Expenses. The increase was primarily due to severance charges related to a corporate initiative partially offset by prior year fuel expense related to OVEC, which is reflected in the Electric Utilities and Infrastructure segment for year ended December 31, 2018. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters" for additional information.

(Losses) Gains on Sales of Other Assets and Other, net. The variance was driven by the loss on sale of the retired Beckjord station, a nonregulated facility retired during 2014, including the transfer of coal ash basins and other real property and indemnification from all potential future claims related to the property, whether arising under environmental laws or otherwise.

Other Income and Expenses, net. The variance was primarily due to insurance proceeds received in the prior year resulting from settlement of the shareholder litigation related to the Progress Energy merger and lower returns on investments that fund certain employee benefit obligations.

Interest Expense. The increase was primarily due to an increase in long-term debt as well as higher interest rates on short-term debt.

Income Tax (Benefit) Expense. The variance was primarily due to the prior year impact of the Tax Act and an increase in pretax loss. See the Tax Act section above for additional information on the Tax Act and the impact on the effective tax rate.

Year Ended December 31, 2017, as compared to 2016

Other's higher net loss was driven by the Tax Act, partially offset by prior year losses on forward-starting interest rate swaps and other costs related to the Piedmont acquisition, decreased severance charges, donations to the Duke Energy Foundation in 2016 and insurance proceeds resulting from settlement of the shareholder litigation related to the Progress Energy merger. The following is a detailed discussion of the variance drivers by line item.

Operating Revenues. The increase was primarily due to higher OVEC revenues and prior year customer credits related to Piedmont merger commitments. See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information.

Operating Expenses. The decrease was primarily due to lower transaction and integration costs associated with the Piedmont acquisition, prior year severance charges related to cost savings initiatives, donations to the Duke Energy Foundation in 2016 as well as prior year depreciation expense and other integration costs related to the Progress Energy merger. The Duke Energy Foundation is a nonprofit organization funded by Duke Energy shareholders that makes charitable contributions to selected nonprofits and government subdivisions.

Other Income and Expenses, net. The increase was primarily driven by insurance proceeds resulting from settlement of the shareholder litigation related to the Progress Energy merger, higher earnings from the equity method investment in NMC and increased returns on investments that fund certain employee benefit obligations.

Interest Expense. The decrease was primarily due to prior year losses on forward-starting interest rate swaps related to Piedmont pre-acquisition financing, partially offset by higher interest costs on $3.75 billion of debt issued in August 2016 to fund the acquisition. For additional information see Notes 2, 6 and 14 to the Consolidated Financial Statements, "Acquisitions and Dispositions," "Debt and Credit Facilities" and "Derivatives and Hedging," respectively.

Income Tax Benefit. The variance was primarily due to the impact of the Tax Act and a decrease in pretax loss. See the Tax Act section above for additional information on the Tax Act and the impact on the effective tax rate.

Matters Impacting Future Other Results

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

INCOME (LOSS) FROM DISCONTINUED OPERATIONS, NET OF TAX

	Years Ended December 31,				
			Variance		Variance
			2018 vs.		2017 vs.
(in millions)	**2018**	**2017**	**2017**	**2016**	**2016**
Income (Loss) From Discontinued Operations, net of tax	**$ 19**	$ (6)	$ 25	$ (408)	$ 402

Year Ended December 31, 2018, as compared to 2017

The variance was primarily driven by tax adjustments related to the International Disposal Groups. See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information.

Year Ended December 31, 2017, as compared to 2016

The variance was primarily driven by the prior year loss on the disposal of Duke Energy's Latin American generation business and an impairment charge related to certain assets in Central America, partially offset by a tax benefit related to historic unremitted foreign earnings and immaterial out of period tax adjustments unrelated to the International Disposal Group. See Note 2 to the Consolidated Financial Statements, "Acquisitions and Dispositions," for additional information.

SUBSIDIARY REGISTRANTS

As a result of the Tax Act, the Subsidiary Registrants revalued their deferred tax assets and deferred tax liabilities, as of December 31, 2017, to account for the estimated future impact of lower corporate tax rates on these deferred tax amounts. During the year ended December 31, 2018, the Subsidiary Registrants recorded measurement period adjustments to the provisional estimate recorded as of December 31, 2017, in accordance with SAB 118. For the Subsidiary Registrants' regulated operations, where the net reduction in the net accumulated deferred income tax liability is expected to be returned to customers in future rates, the remeasurement has been deferred as a regulatory liability. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters" for additional information on the Tax Act's impact to the regulatory asset and liability accounts. The change in each Subsidiary Registrant's effective tax rate for the year ended December 31, 2018, was primarily due to the impact of the Tax Act, unless noted below. The following table shows the expense (benefit) recorded on the Subsidiary Registrant's Consolidated Statements of Operations and Comprehensive Income, and the effective tax rate for each Subsidiary Registrant.

	Impacts of the Tax Act[a][b]		Effective Tax Rate	
	Years Ended December 31,		Years Ended December 31,	
(in millions)	**2018**	**2017**	**2018**	**2017**
Duke Energy Carolinas	**$ 1**	$ 15	**22.1%**	34.9%
Progress Energy	**25**	(246) [c]	**17.4%**	17.2%
Duke Energy Progress	**19**	(40) [d]	**19.3%**	29.0%
Duke Energy Florida	**—**	(226) [c]	**15.4%**	6.1%
Duke Energy Ohio	**2**	(23) [e]	**19.6%**	23.4%
Duke Energy Indiana	**—**	55 [f]	**24.6%**	46.0%
Piedmont	**—**	(2) [d][g]	**22.3%**	30.8%

(a) Except where noted below, amounts are included within Income Tax Expense From Continuing Operations or Income Tax Expense on the Consolidated Statements of Operations and Comprehensive Income.
(b) See Notes 4 and 23 to the Consolidated Financial Statements, "Regulatory Matters" and "Income Taxes," respectively, for information about the Tax Act's impact on Duke Energy's Consolidated Balance Sheets.
(c) 2017 amount primarily relates to the remeasurement of deferred tax liabilities that are excluded for ratemaking purposes related to abandoned assets and certain wholesale fixed rate contracts.
(d) 2017 amount primarily relates to the remeasurement of deferred tax liabilities of certain wholesale fixed rate contracts.
(e) 2017 amount primarily relates to the remeasurement of deferred tax assets that are excluded for ratemaking purposes related to a prior transfer of certain electric generating assets.
(f) 2017 amount primarily relates to the remeasurement of deferred tax liabilities that are excluded for ratemaking purposes related to impaired assets.
(g) 2017 amount includes a $16 million expense recorded within Equity in earnings (losses) of unconsolidated affiliates on the Consolidated Statements of Operations and Comprehensive Income.

DUKE ENERGY CAROLINAS

Introduction

Management’s Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Duke Energy Carolinas is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**Variance**
Operating Revenues	**$ 7,300**	$ 7,302	$ (2)
Operating Expenses			
Fuel used in electric generation and purchased power	**1,821**	1,822	(1)
Operation, maintenance and other	**2,130**	2,021	109
Depreciation and amortization	**1,201**	1,090	111
Property and other taxes	**295**	281	14
Impairment charges	**192**	—	192
Total operating expenses	**5,639**	5,214	425
(Losses) Gains on Sales of Other Assets and Other, net	**(1)**	1	(2)
Operating Income	**1,660**	2,089	(429)
Other Income and Expenses, net	**153**	199	(46)
Interest Expense	**439**	422	17
Income Before Income Taxes	**1,374**	1,866	(492)
Income Tax Expense	**303**	652	(349)
Net Income	**$ 1,071**	$ 1,214	$ (143)

The following table shows the percent changes in GWh sales and average number of customers for Duke Energy Carolinas. The below percentages for retail customer classes represent billed sales only. Total sales includes billed and unbilled retail sales and wholesale sales to incorporated municipalities and to public and private utilities and power marketers. Amounts are not weather-normalized.

Increase (Decrease) over prior year	**2018**	**2017**
Residential sales	**11.7 %**	(4.8)%
General service sales	**4.5 %**	(1.8)%
Industrial sales	**(0.3)%**	(0.8)%
Wholesale power sales	**12.5 %**	6.3 %
Joint dispatch sales	**23.1 %**	18.2 %
Total sales	**5.7 %**	(1.4)%
Average number of customers	**1.5 %**	1.5 %

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $263 million decrease in retail sales due to revenues subject to refund to customers associated with the lower statutory federal corporate tax rate under the Tax Act;
- a $68 million decrease in retail rider revenues primarily related to the implementation of new base rates; and
- an $8 million decrease in wholesale power revenues, net of sharing and fuel, primarily due to wholesale customer refunds in the current year related to a FERC order on a complaint filed by PMPA, partially offset by higher revenues related to recovery of coal ash costs.

Partially offset by:

- a $169 million increase in retail sales, net of fuel revenues, due to favorable weather in the current year;
- an $83 million increase in retail pricing from impacts of the North Carolina rate case;
- a $49 million increase in other revenues primarily due to the recognition of previously deferred revenues associated with storm restoration costs in South Carolina and favorable transmission revenues; and
- a $36 million increase in weather-normal retail sales volumes.

Operating Expenses. The variance was driven primarily by:

- a $192 million increase in impairment charges primarily due to the impacts of the North Carolina rate order and charges related to coal ash costs in South Carolina;
- a $111 million increase in depreciation and amortization expense primarily due to additional plant in service, new depreciation rates associated with the North Carolina rate case and higher amortization of deferred coal ash costs, partially offset by lower amortization of certain regulatory assets; and

- a $109 million increase in operations, maintenance and other expense primarily due to severance charges.

Other Income and Expenses, net. The variance was primarily due to lower AFUDC equity related to the Lee Nuclear Project and W.S. Lee CC and a decrease in recognition of post in-service equity returns for projects that had been completed prior to being reflected in customer rates.

Interest Expense. The variance was primarily due to higher debt outstanding in the current year.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act. The ETRs for the years ended December 31, 2018, and 2017 were 22.1 percent and 34.9 percent, respectively. The decrease in the ETR was primarily due to the lower statutory federal corporate tax rate under the Tax Act and the amortization of state excess deferred taxes.

Matters Impacting Future Results

On May 18, 2016, the NCDEQ issued proposed risk classifications for all coal ash surface impoundments in North Carolina. All ash impoundments not previously designated as high priority by the Coal Ash Act were designated as intermediate risk. Certain impoundments classified as intermediate risk, however, were eligible for reassessment as low-risk pursuant to legislation enacted on July 14, 2016. On November 14, 2018, NCDEQ issued final low risk classifications for these impoundments, indicating that Duke Energy Carolinas had satisfied the permanent replacement water supply and certain dam improvement requirements set out in the Coal Ash Management Act. As the final closure plans and corrective action measures are developed and approved for each site, the closure work progresses, and the closure method scope and remedial action methods are determined, the complexity of work and the amount of coal combustion material could be different than originally estimated and, therefore, could materially impact Duke Energy Carolinas' results of operations, financial position and cash flows. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations," for additional information.

Duke Energy Carolinas is a party to multiple lawsuits and subject to fines and other penalties related to operations at certain North Carolina facilities with ash basins. In addition, the order issued in the Duke Energy Carolinas North Carolinas rate case supporting recovery of past coal ash remediation costs has been appealed by various parties. The outcome of these appeals, lawsuits, fines and penalties could have an adverse impact on Duke Energy Carolinas' results of operations, financial position and cash flows. See Notes 4 and 5 to the Consolidated Financial Statements, "Regulatory Matters" and “Commitments and Contingencies,” respectively, for additional information.

On June 22, 2018, Duke Energy Carolinas received an order from the NCUC, which denied the Grid Rider Stipulation and deferral treatment of grid improvement costs. Duke Energy Carolinas may petition for deferral of grid modernization costs outside of a general rate case proceeding if it can show financial hardship or a stipulation that includes greater consensus among intervening parties on costs being classified as grid modernization. Duke Energy Carolinas' results of operations, financial position and cash flows could be adversely impacted if grid modernization costs are not ultimately approved for recovery and/or deferral treatment. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

During the last half of 2018, Duke Energy Carolinas’ service territory was impacted by several named storms. Hurricane Florence, Hurricane Michael and Winter Storm Diego caused flooding, extensive damage and widespread power outages in the service territory. A significant portion of the incremental operation and maintenance expenses related to these storms have been deferred. On December 21, 2018, Duke Energy Carolinas filed with the NCUC a petition for approval to defer the incremental storm costs incurred to a regulatory asset for recovery in the next base rate case. An order from regulatory authorities disallowing the deferral and future recovery of storm restoration costs could have an adverse impact on Duke Energy Carolinas' results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Appeals of the recently approved rate case for Duke Energy Carolinas are pending at the North Carolina Supreme Court. The North Carolina Attorney General and various intervenors primarily dispute the allowance of recovery of coal ash costs from customers, which was approved by the NCUC. The outcome of these appeals could have an adverse impact to Duke Energy Carolina's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

PROGRESS ENERGY

Introduction

Management’s Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Progress Energy is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

(in millions)	Years Ended December 31, 2018	2017	Variance
Operating Revenues	**$ 10,728**	$ 9,783	$ 945
Operating Expenses			
Fuel used in electric generation and purchased power	**3,976**	3,417	559
Operation, maintenance and other	**2,613**	2,301	312
Depreciation and amortization	**1,619**	1,285	334
Property and other taxes	**529**	503	26
Impairment charges	**87**	156	(69)
Total operating expenses	**8,824**	7,662	1,162
Gains on Sales of Other Assets and Other, net	**24**	26	(2)
Operating Income	**1,928**	2,147	(219)
Other Income and Expenses, net	**165**	209	(44)
Interest Expense	**842**	824	18
Income Before Income Taxes	**1,251**	1,532	(281)
Income Tax Expense	**218**	264	(46)
Net Income	**1,033**	1,268	(235)
Less: Net Income Attributable to Noncontrolling Interests	**6**	10	(4)
Net Income Attributable to Parent	**$ 1,027**	$ 1,258	$ (231)

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $614 million increase in fuel and capacity revenues primarily due to an increase in fuel and capacity rates billed to retail customers and increased demand;
- a $149 million increase in retail pricing due to the impacts of the Duke Energy Progress North Carolina and South Carolina rate cases and Duke Energy Florida base rate adjustments related to generation assets being placed into service;
- a $108 million increase in retail sales due to favorable weather in the current year, net of lost revenue impacts associated with Hurricane Irma in 2017 and Hurricane Florence in 2018;
- a $96 million increase in wholesale power revenues, net of fuel, primarily due to recovery of coal ash costs and higher peak demand at Duke Energy Progress;
- a $34 million net increase in retail rider revenues in conjunction with the implementation of new base rates at Duke Energy Progress; and
- a $47 million increase in weather-normal retail sales volumes.

Partially offset by:

- a $119 million decrease in retail sales due to revenues subject to refund to customers associated with the lower statutory federal corporate tax rate under the Tax Act at Duke Energy Progress.

Operating Expenses. The variance was driven primarily by:

- a $559 million increase in fuel used in electric generation and purchased power primarily due to higher amortization of deferred fuel and capacity expenses, increased demand and changes in generation mix;
- a $334 million increase in depreciation and amortization expense primarily due to higher amortization of deferred coal ash costs and new depreciation rates associated with the North Carolina rate case at Duke Energy Progress, and accelerated depreciation of Crystal River Units 4 and 5 at Duke Energy Florida;
- a $312 million increase in operation, maintenance and other expense primarily due to higher costs related to storms, vegetation management costs and severance charges; and
- a $26 million increase in property and other taxes primarily due to higher revenue related taxes at Duke Energy Florida.

Partially offset by:

- a $69 million decrease in impairment charges primarily due to the write-off of remaining unrecovered Levy Nuclear Project costs in the prior year, offset by the current year impairment of the Citrus County CC at Duke Energy Florida and the impacts associated with the North Carolina rate case at Duke Energy Progress.

Other Income and Expenses, net. The variance was primarily due to lower income from non-service components of employee benefit costs in the current year at Duke Energy Progress and Duke Energy Florida. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans."

Interest Expense. The variance was primarily due to new debt issuances at Duke Energy Progress.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act partially offset by the favorable impact of the Tax Act in the prior year. The effective tax rate for the years ended December 31, 2018, and 2017 were 17.4 percent and 17.2 percent, respectively. The change in the effective tax rate was primarily due to the favorable impact of the Tax Act in the prior year mostly offset by the lower statutory federal corporate tax rate under the Tax Act and the amortization of federal and state excess deferred taxes in the current year.

Matters Impacting Future Results

On May 18, 2016, the NCDEQ issued proposed risk classifications for all coal ash surface impoundments in North Carolina. All ash impoundments not previously designated as high priority by the Coal Ash Act were designated as intermediate risk. Certain impoundments classified as intermediate risk, however, were eligible for reassessment as low-risk pursuant to legislation enacted on July 14, 2016. On November 14, 2018, NCDEQ issued final low risk classifications for these impoundments, indicating that Progress Energy had satisfied the permanent replacement water supply and certain dam improvement requirements set out in the Coal Ash Management Act. As the final closure plans and corrective action measures are developed and approved for each site, the closure work progresses, and the closure method scope and remedial action methods are determined, the complexity of work and the amount of coal combustion material could be different than originally estimated and, therefore, could materially impact Progress Energy's results of operations, financial position and cash flows. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations," for additional information.

Duke Energy Progress is a party to multiple lawsuits and subject to fines and other penalties related to operations at certain North Carolina facilities with ash basins. As noted above, the order issued in the Duke Energy Progress North Carolinas rate case supporting recovery of past coal ash remediation costs has been appealed by various parties. The outcome of these appeals, lawsuits, fines and penalties could have an adverse impact on Progress Energy's results of operations, financial position and cash flows. See Notes 4 and 5 to the Consolidated Financial Statements, "Regulatory Matters" and "Commitments and Contingencies," respectively, for additional information.

Duke Energy Carolinas received an order from the NCUC, which denied the Grid Rider Stipulation and deferral treatment of grid improvement costs. The NCUC did allow Duke Energy Carolinas to petition for deferral of grid modernization costs outside of a general rate case proceeding if it can show financial hardship or a stipulation that includes greater consensus among intervening parties on costs being classified as grid modernization. While Duke Energy Progress did not request recovery of these costs in its most recent case with the NCUC, Duke Energy Progress may request recovery of certain grid modernization costs in future regulatory proceedings. If the NCUC were to rule similarly, Progress Energy's results of operations, financial position and cash flows could be adversely impacted if grid modernization costs are not ultimately approved for recovery and/or deferral treatment. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

During the last half of 2018, Duke Energy Progress and Duke Energy Florida's service territories were impacted by several named storms. Hurricane Florence, Hurricane Michael and Winter Storm Diego caused flooding, extensive damage and widespread power outages to the service territory of Duke Energy Progress. Duke Energy Florida's service territory was also impacted by Hurricane Michael, a Category 4 hurricane and the most powerful storm to hit the Florida Panhandle in recorded history. A significant portion of the incremental operation and maintenance expenses related to these storms have been deferred. On December 21, 2018, Duke Energy Progress filed with the NCUC a petition for approval to defer the incremental storm costs incurred to a regulatory asset for recovery in the next base rate case. Duke Energy Progress filed a similar request with the PSCSC on January 11, 2019, which also included a request for the continuation of prior deferrals requested for other storms, and on January 30, 2019, the PSCSC issued a directive approving the deferral request. Duke Energy Florida anticipates filing a petition in the first half of 2019 with the FPSC to recover incremental storm costs consistent with the provisions in its 2017 Settlement. An order from regulatory authorities disallowing the deferral and future recovery of storm restoration costs could have an adverse impact on Progress Energy's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Appeals of the recently approved rate case for Duke Energy Progress are pending at the North Carolina Supreme Court. The North Carolina Attorney General and various intervenors primarily dispute the allowance of recovery of coal ash costs from customers, which was approved by the NCUC. The outcome of these appeals could have an adverse impact to Progress Energy's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

On February 6, 2018, the FPSC approved a stipulation that would apply tax savings resulting from the Tax Act toward storm costs effective January 2018 in lieu of implementing a storm surcharge. On May 31, 2018, Duke Energy Florida filed for recovery of the storm costs. Storm costs are currently expected to be fully recovered by approximately mid-2021. The commission has scheduled the hearing to begin on May 21, 2019. An order disallowing recovery of these costs could have an adverse impact on Progress Energy's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

DUKE ENERGY PROGRESS

Introduction

Management's Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Duke Energy Progress is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**Variance**
Operating Revenues	**$ 5,699**	$ 5,129	$ 570
Operating Expenses			
Fuel used in electric generation and purchased power	**1,892**	1,609	283
Operation, maintenance and other	**1,578**	1,439	139
Depreciation and amortization	**991**	725	266
Property and other taxes	**155**	156	(1)
Impairment charges	**33**	19	14
Total operating expenses	**4,649**	3,948	701
Gains on Sales of Other Assets and Other, net	**9**	4	5
Operating Income	**1,059**	1,185	(126)
Other Income and Expenses, net	**87**	115	(28)
Interest Expense	**319**	293	26
Income Before Income Taxes	**827**	1,007	(180)
Income Tax Expense	**160**	292	(132)
Net Income	**$ 667**	$ 715	$ (48)

The following table shows the percent changes in GWh sales and average number of customers for Duke Energy Progress. The below percentages for retail customer classes represent billed sales only. Total sales includes billed and unbilled retail sales and wholesale sales to incorporated municipalities and to public and private utilities and power marketers. Amounts are not weather-normalized.

Increase (Decrease) over prior year	2018	2017
Residential sales	**9.9%**	(2.6)%
General service sales	**2.3%**	(1.3)%
Industrial sales	**0.8%**	1.1 %
Wholesale power sales	**4.6%**	(2.9)%
Joint dispatch sales	**2.1%**	(17.1)%
Total sales	**3.8%**	(3.2)%
Average number of customers	**1.5%**	1.4 %

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $324 million increase in fuel revenues driven by higher retail sales and changes in generation mix;
- a $125 million increase in retail pricing due to the impacts from the North Carolina and South Carolina rate cases;
- a $96 million increase in wholesale power revenues, net of fuel, primarily due to recovery of coal ash costs and higher peak demand;
- a $34 million net increase in retail rider revenues in conjunction with the implementation of new base rates;
- a $61 million increase in retail sales due to favorable weather in the current year, net of the impact of lost revenues due to Hurricane Florence; and
- a $35 million increase in weather-normal retail sales volumes.

Partially offset by:

- a $119 million decrease in retail sales due to revenues subject to refund to customers associated with the lower statutory federal corporate tax rate under the Tax Act.

Operating Expenses. The variance was driven primarily by:

- a $283 million increase in fuel used in electric generation and purchased power primarily due to higher retail sales and changes in generation mix;
- a $266 million increase in depreciation and amortization expense primarily due to higher amortization of deferred coal ash costs and new depreciation rates associated with the North Carolina rate case;
- a $139 million increase in operation, maintenance and other expense primarily due to higher storm costs, impacts associated with the North Carolina rate case and severance charges; and
- a $14 million increase in impairment charges associated with the North Carolina rate case.

Other Income and Expenses, net. The variance was primarily driven by lower income from non-service components of employment benefit costs. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans."

Interest Expense. The variance was primarily driven by new debt issuances.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act partially offset by the favorable impact of the Tax Act in the prior year. The effective tax rates for the years ended December 31, 2018, and 2017 were 19.3 percent and 29.0 percent, respectively. The decrease in the effective tax rate was primarily due to the lower statutory federal corporate tax rate under the Tax Act and the amortization of state excess deferred taxes partially offset by the impact of the Tax Act in the prior year.

Matters Impacting Future Results

On May 18, 2016, the NCDEQ issued proposed risk classifications for all coal ash surface impoundments in North Carolina. All ash impoundments not previously designated as high priority by the Coal Ash Act were designated as intermediate risk. Certain impoundments classified as intermediate risk, however, were eligible for reassessment as low-risk pursuant to legislation enacted on July 14, 2016. On November 14, 2018, NCDEQ issued final low risk classifications for these impoundments, indicating that Duke Energy Progress had satisfied the permanent replacement water supply and certain dam improvement requirements set out in the Coal Ash Management Act. As the final closure plans and corrective action measures are developed and approved for each site, the closure work progresses, and the closure method scope and remedial action methods are determined, the complexity of work and the amount of coal combustion material could be different than originally estimated and, therefore, could materially impact Duke Energy Progress' results of operations, financial position and cash flows. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations," for additional information.

Duke Energy Progress is a party to multiple lawsuits and subject to fines and other penalties related to operations at certain North Carolina facilities with ash basins. As noted above, the order issued in the Duke Energy Progress North Carolinas rate case supporting recovery of past coal ash remediation costs has been appealed by various parties. The outcome of these appeals, lawsuits, fines and penalties could have an adverse impact on Duke Energy Progress' results of operations, financial position and cash flows. See Notes 4 and 5 to the Consolidated Financial Statements, "Regulatory Matters" and “Commitments and Contingencies,” respectively, for additional information.

Duke Energy Carolinas received an order from the NCUC, which denied the Grid Rider Stipulation and deferral treatment of grid improvement costs. The NCUC did allow Duke Energy Carolinas to petition for deferral of grid modernization costs outside of a general rate case proceeding if it can show financial hardship or a stipulation that includes greater consensus among intervening parties on costs being classified as grid modernization. While Duke Energy Progress did not request recovery of these costs in its most recent case with the NCUC, Duke Energy Progress may request recovery of certain grid modernization costs in future regulatory proceedings. If the NCUC were to rule similarly, Duke Energy Progress' results of operations, financial position and cash flows could be adversely impacted if grid modernization costs are not ultimately approved for recovery and/or deferral treatment. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

During the last half of 2018, Duke Energy Progress' service territory was impacted by several named storms. Hurricane Florence, Hurricane Michael and Winter Storm Diego caused flooding, extensive damage and widespread power outages in the service territory. A significant portion of the incremental operation and maintenance expenses related to these storms have been deferred. On December 21, 2018, Duke Energy Progress filed with the NCUC a petition for approval to defer the incremental storm costs incurred to a regulatory asset for recovery in the next base rate case. Duke Energy Progress filed a similar request with the PSCSC on January 11, 2019, which also included a request for the continuation of prior deferrals requested for other storms, and on January 30, 2019, the PSCSC issued a directive approving the deferral request. An order from regulatory authorities disallowing the deferral and future recovery of storm restoration costs could have an adverse impact on Duke Energy Progress' results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Appeals of the recently approved rate case for Duke Energy Progress are pending at the North Carolina Supreme Court. The North Carolina Attorney General and various intervenors primarily dispute the allowance of recovery of coal ash costs from customers, which was approved by the NCUC. The outcome of these appeals could have an adverse impact to Duke Energy Progress' results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

DUKE ENERGY FLORIDA

Introduction

Management's Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Duke Energy Florida is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**Variance**
Operating Revenues	**$ 5,021**	$ 4,646	$ 375
Operating Expenses			
Fuel used in electric generation and purchased power	**2,085**	1,808	277
Operation, maintenance and other	**1,025**	853	172
Depreciation and amortization	**628**	560	68
Property and other taxes	**374**	347	27
Impairment charges	**54**	138	(84)
Total operating expenses	**4,166**	3,706	460
Gains on Sales of Other Assets and Other, net	**1**	1	—
Operating Income	**856**	941	(85)
Other Income and Expenses, net	**86**	96	(10)
Interest Expense	**287**	279	8
Income Before Income Taxes	**655**	758	(103)
Income Tax Expense	**101**	46	55
Net Income	**$ 554**	$ 712	$ (158)

The following table shows the percent changes in GWh sales and average number of customers for Duke Energy Florida. The below percentages for retail customer classes represent billed sales only. Wholesale power sales include both billed and unbilled sales. Total sales includes billed and unbilled retail sales and wholesale sales to incorporated municipalities and to public and private utilities and power marketers. Amounts are not weather-normalized.

Increase (Decrease) over prior year	**2018**	**2017**
Residential sales	**4.3 %**	(2.3)%
General service sales	**1.9 %**	(1.3)%
Industrial sales	**(0.4)%**	(2.4)%
Wholesale power sales	**5.2 %**	20.1 %
Total sales	**2.4 %**	0.5 %
Average number of customers	**1.5 %**	1.6 %

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $290 million increase in fuel and capacity revenues primarily due to an increase in fuel and capacity rates billed to retail customers and increased demand;
- a $47 million increase in retail sales, net of fuel revenues, due to favorable weather in the current year and impacts of lost revenue resulting from Hurricane Irma in the prior year:
- a $24 million increase in retail pricing due to base rate adjustments related to generation assets being placed into service; and
- a $12 million increase in weather-normal retail sales volumes.

Operating Expenses. The variance was driven primarily by:

- a $277 million increase in fuel used in electric generation and purchased power primarily due to higher amortization of deferred fuel and capacity expenses and increased purchased power and demand;
- a $172 million increase in operation, maintenance and other expense primarily due to higher storm cost amortization, vegetation management costs and severance charges, partially offset by lower storm restoration costs in the current year;

- a $68 million increase in depreciation and amortization expense primarily due to accelerated depreciation of Crystal River Units 4 and 5 and additional plant in service; and
- a $27 million increase in property and other taxes primarily due to higher revenue related taxes.

Partially offset by:

- an $84 million decrease in impairment charges primarily due to the write-off of remaining unrecovered Levy Nuclear Project costs in the prior year, offset by the current year impairment of the Citrus County CC.

Other Income and Expenses, net. The variance was driven primarily by lower income from non-service components of employee benefit costs in the current year. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans."

Income Tax Expense. The variance was primarily due to the favorable impact of the Tax Act in the prior year partially offset by the lower statutory federal corporate tax rate under the Tax Act in the current year. The effective tax rates for the years ended December 31, 2018, and 2017 were 15.4 percent and 6.1 percent, respectively. The increase in the effective tax rate was primarily due to the favorable impact of the Tax Act in the prior year partially offset by the lower statutory federal corporate tax rate under the Tax Act and the amortization of federal excess deferred taxes in the current year.

Matters Impacting Future Results

On October 10, 2018, Hurricane Michael made landfall on Florida's Panhandle as a Category 4 hurricane, the most powerful storm to hit the Florida Panhandle in recorded history. The storm caused significant damage within the service territory of Duke Energy Florida, particularly from Panama City Beach to Mexico Beach. Duke Energy Florida has not completed the final accumulation of total estimated storm restoration costs incurred. Given the magnitude of the storm, Duke Energy Florida anticipates filing a petition in the first half of 2019 with the FPSC to recover incremental storm costs consistent with the provisions in its 2017 Settlement. An order from regulatory authorities disallowing the future recovery of storm restoration costs could have an adverse impact on Duke Energy Florida's financial position, results of operations and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

On February 6, 2018, the FPSC approved a stipulation that would apply tax savings resulting from the Tax Act toward storm costs effective January 2018 in lieu of implementing a storm surcharge. On May 31, 2018, Duke Energy Florida filed for recovery of the storm costs. Storm costs are currently expected to be fully recovered by approximately mid-2021. The commission has scheduled the hearing to begin on May 21, 2019. An order disallowing recovery of these costs could have an adverse impact on Duke Energy Florida's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

DUKE ENERGY OHIO

Introduction

Management's Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Duke Energy Ohio is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**Variance**
Operating Revenues			
Regulated electric	**$ 1,450**	$ 1,373	$ 77
Regulated natural gas	**506**	508	(2)
Nonregulated electric and other	**1**	42	(41)
Total operating revenues	**1,957**	1,923	34
Operating Expenses			
Fuel used in electric generation and purchased power – regulated	**412**	369	43
Fuel used in electric generation and purchased power – nonregulated	**—**	58	(58)
Cost of natural gas	**113**	107	6
Operation, maintenance and other	**480**	530	(50)
Depreciation and amortization	**268**	261	7
Property and other taxes	**290**	278	12
Impairment charges	**—**	1	(1)
Total operating expenses	**1,563**	1,604	(41)
(Losses) Gains on Sales of Other Assets and Other, net	**(106)**	1	(107)
Operating Income	**288**	320	(32)
Other Income and Expenses, net	**23**	23	—
Interest Expense	**92**	91	1
Income from Continuing Operations Before Income Taxes	**219**	252	(33)
Income Tax Expense from Continuing Operations	**43**	59	(16)
Income from Continuing Operations	**176**	193	(17)
(Loss) Income from Discontinued Operations, net of tax	**—**	(1)	1
Net Income	**$ 176**	$ 192	$ (16)

The following table shows the percent changes in GWh sales of electricity, dekatherms of natural gas delivered and average number of electric and natural gas customers for Duke Energy Ohio. The below percentages for retail customer classes represent billed sales only. Total sales includes billed and unbilled retail sales and wholesale sales to incorporated municipalities and to public and private utilities and power marketers. Amounts are not weather-normalized.

	Electric		Natural Gas	
Increase (Decrease) over prior year	**2018**	**2017**	**2018**	**2017**
Residential sales	**12.2 %**	(4.0)%	**18.0%**	(2.6)%
General service sales	**3.3 %**	(3.1)%	**15.4%**	0.7 %
Industrial sales	**1.0 %**	(2.7)%	**8.1%**	(2.8)%
Wholesale electric power sales	**(46.6)%**	65.7 %	**n/a**	n/a
Other natural gas sales	**n/a**	n/a	**0.7%**	(0.3)%
Total sales	**2.8 %**	(2.1)%	**11.9%**	(1.1)%
Average number of customers	**0.8 %**	0.8 %	**0.9%**	0.7 %

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. In 2018, the revenues and related expenses for OVEC are reflected in regulated electric due to the PUCO Order that approved Duke Energy Ohio to recover or credit amounts, through Rider PSR, that result from wholesale market transactions relating to Duke Energy Ohio's entitlement to capacity and energy from OVEC's power plants. In 2017, the revenues and related expenses for OVEC are reflected in nonregulated electric. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters" for additional information.

The variance was driven primarily by:

- a $44 million increase in electric and natural gas retail sales, net of fuel revenues, due to favorable weather in the current year;
- a $17 million increase in rider revenue primarily related to capital investment riders;
- a $16 million increase in financial transmission rights revenues;
- a $7 million increase in point-to-point transmission revenues; and
- a $6 million increase in fuel revenues due to higher natural gas costs.

Partially offset by:

- a $48 million decrease in regulated revenues due to revenues subject to refund to customers associated with the lower statutory corporate tax rate under the Tax Act; and
- a $7 million decrease in bulk power marketing sales.

Operating Expenses. The variance was driven by:

- a $50 million decrease in operations, maintenance and other expense primarily due to the FERC approved settlement refund of certain transmission costs previously billed by PJM; and
- a $15 million decrease in fuel used in electric generation and purchased power related to the deferral of OVEC purchased power, which is reflected in regulated electric in 2018 and nonregulated electric in 2017, as noted above in the Operating Revenues section.

Partially offset by:

- a $12 million increase in property and other taxes primarily due to higher property taxes and kilowatt tax;
- a $7 million increase in depreciation and amortization expense primarily due to additional plant in service and increased amortization of regulatory assets; and
- a $6 million increase in cost of natural gas primarily due to an increase in natural gas sales volumes.

(Losses) Gains on Sales of Other Assets and Other, net. The decrease was driven by the loss on the sale of Beckjord, a nonregulated facility retired during 2014, including the transfer of coal ash basins and other real property and indemnification from any and all potential future claims related to the property, whether arising under environmental laws or otherwise.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act and a decrease in pretax income. The effective tax rates for the years ended December 31, 2018, and 2017 were 19.6 percent and 23.4 percent, respectively. The decrease in the effective tax rate was primarily due to the lower statutory federal corporate tax rate under the Tax Act partially offset by the impact of the Tax Act in the prior year.

Matters Impacting Future Results

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

DUKE ENERGY INDIANA

Introduction

Management's Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, 2017 and 2016.

Basis of Presentation

The results of operations and variance discussion for Duke Energy Indiana is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**Variance**
Operating Revenues	**$ 3,059**	$ 3,047	$ 12
Operating Expenses			
Fuel used in electric generation and purchased power	**1,000**	966	34
Operation, maintenance and other	**788**	743	45
Depreciation and amortization	**520**	458	62
Property and other taxes	**78**	76	2
Impairment charges	**30**	18	12
Total operating expenses	**2,416**	2,261	155
Operating Income	**643**	786	(143)
Other Income and Expenses, net	**45**	47	(2)
Interest Expense	**167**	178	(11)
Income Before Income Taxes	**521**	655	(134)
Income Tax Expense	**128**	301	(173)
Net Income	**$ 393**	$ 354	$ 39

The following table shows the percent changes in GWh sales and average number of customers for Duke Energy Indiana. The below percentages for retail customer classes represent billed sales only. Total sales includes billed and unbilled retail sales and wholesale sales to incorporated municipalities and to public and private utilities and power marketers. Amounts are not weather-normalized.

Increase (Decrease) over prior year	**2018**	**2017**
Residential sales	**12.5 %**	(3.8)%
General service sales	**2.8 %**	(2.4)%
Industrial sales	**0.5 %**	0.3 %
Wholesale power sales	**(0.9)%**	(10.5)%
Total sales	**3.3 %**	(3.6)%
Average number of customers	**1.3 %**	0.8 %

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $65 million increase in rate rider revenues primarily related to the Edwardsport IGCC plant and the TDSIC rider;
- a $50 million increase in fuel and other revenues primarily due to higher base fuel, non-native fuel and Midwest Independent System Operator rider revenues;
- a $13 million increase in retail sales, net of fuel revenues, due to favorable weather in the current year; and
- a $13 million increase in weather-normal retail sales volumes.

Partially offset by:

- a $105 million decrease due to revenues subject to refund to customers associated with the lower statutory federal corporate tax rate under the Tax Act; and
- a $27 million decrease in wholesale power revenues, net of fuel, primarily due to contracts that expired in the prior year.

Operating Expenses. The variance was driven primarily by:

- a $62 million increase in depreciation and amortization expense primarily due to additional plant in service and the deferral of certain asset retirement obligations in the prior year;

- a $45 million increase in operation, maintenance and other expense primarily due to amortization of previously deferred expenses, and higher transmission, storm and customer related costs;
- a $34 million increase in fuel used in electric generation and purchased power primarily due to higher natural gas costs; and
- a $12 million increase in impairment charges primarily due to the reduction of a regulatory asset pertaining to the Edwardsport IGCC settlement agreement in the current year, partially offset by the impairment of certain metering equipment in the prior year.

Interest Expense. The variance was primarily due to lower post in-service carrying costs due to three coal ash projects placed in service in December 2017, partially offset by higher intercompany money pool interest expense, higher AFUDC debt balances and higher floating rate debt interest expense.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act. The effective tax rates for the years ended December 31, 2018, and 2017 were 24.6 percent and 46.0 percent, respectively. The decrease in the effective tax rate was primarily due to the lower statutory federal corporate tax rate under the Tax Act and by the impact of the Tax Act in the prior year.

Matters Impacting Future Results

On April 17, 2015, the EPA published in the Federal Register a rule to regulate the disposal of CCR from electric utilities as solid waste. Duke Energy Indiana has interpreted the rule to identify the coal ash basin sites impacted and has assessed the amounts of coal ash subject to the rule and a method of compliance. Duke Energy Indiana's interpretation of the requirements of the CCR rule is subject to potential legal challenges and further regulatory approvals, which could result in additional ash basin closure requirements, higher costs of compliance and greater AROs. Additionally, Duke Energy Indiana has retired facilities that are not subject to the CCR rule. Duke Energy Indiana may incur costs at these facilities to comply with environmental regulations or to mitigate risks associated with on-site storage of coal ash. An order from regulatory authorities disallowing recovery of costs related to closure of ash basins could have an adverse impact on Duke Energy Indiana's results of operations, financial position and cash flows. See Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” for additional information.

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

PIEDMONT

Introduction

Management’s Discussion and Analysis should be read in conjunction with the accompanying Consolidated Financial Statements and Notes for the years ended December 31, 2018, and 2017, Piedmont's Annual Report on Form 10-K for the year ended October 31, 2016, and the Form 10-QT as of December 31, 2016, for the transition period from November 1, 2016, to December 31, 2016. The unaudited results of operations for the year ended December 31, 2016, were derived from data previously reported in the reports noted above.

Basis of Presentation

The results of operations and variance discussion for Piedmont is presented in a reduced disclosure format in accordance with General Instruction (I)(2)(a) of Form 10-K.

Results of Operations

(in millions)	Years Ended December 31, 2018	2017	Variance
Operating Revenues			
Regulated natural gas	**$ 1,365**	$ 1,319	$ 46
Nonregulated natural gas and other	**10**	9	1
Total operating revenues	**1,375**	1,328	47
Operating Expenses			
Cost of natural gas	**584**	524	60
Operation, maintenance and other	**357**	304	53
Depreciation and amortization	**159**	148	11
Property and other taxes	**49**	48	1
Impairment charges	**—**	7	(7)
Total operating expenses	**1,149**	1,031	118
Operating Income	**226**	297	(71)
Equity in earnings (losses) of unconsolidated affiliates	**7**	(6)	13
Other income and expenses, net	**14**	(11)	25
Total other income and expenses	**21**	(17)	38
Interest Expense	**81**	79	2
Income Before Income Taxes	**166**	201	(35)
Income Tax Expense	**37**	62	(25)
Net Income	**$ 129**	$ 139	$ (10)

The following table shows the percent changes in dekatherms delivered and average number of customers. The percentages for all throughput deliveries represent billed and unbilled sales. Amounts are not weather-normalized.

Increase (Decrease) over prior year	2018	2017
Residential deliveries	**23.6 %**	(8.1)%
Commercial deliveries	**14.9 %**	(4.3)%
Industrial deliveries	**4.2 %**	(2.2)%
Power generation deliveries	**23.6 %**	(5.8)%
For resale	**17.0 %**	(20.9)%
Total throughput deliveries	**19.0 %**	(5.4)%
Secondary market volumes	**(8.1)%**	(4.2)%
Average number of customers	**1.6 %**	1.7 %

Piedmont's throughput was 557,145,128 dekatherms and 468,259,777 dekatherms for the years ended December 31, 2018, and 2017, respectively. Due to the margin decoupling mechanism in North Carolina and WNA mechanisms in South Carolina and Tennessee, changes in throughput deliveries do not have a material impact on Piedmont's revenues or earnings. The margin decoupling mechanism adjusts for variations in residential and commercial use per customer, including those due to weather and conservation. The WNA mechanisms mostly offset the impact of weather on bills rendered, but do not ensure full recovery of approved margin during periods when winter weather is significantly warmer or colder than normal.

Year Ended December 31, 2018, as compared to 2017

Operating Revenues. The variance was driven primarily by:

- a $60 million increase primarily due to higher natural gas costs passed through to customers due to higher volumes sold and higher natural gas prices; and
- a $37 million increase primarily due to residential and commercial customer revenue, net of natural gas costs passed through to customers, due to customer growth and IMR rate adjustments and new power generation customers.

Partially offset by:

- a $51 million decrease primarily due to revenues subject to refund to customers associated with the lower statutory corporate tax rate under the Tax Act.

Operating Expenses. The variance was driven by:

- a $60 million increase in cost of natural gas primarily due to higher volumes sold and higher natural gas costs passed through to customers due to the higher price per dekatherm of natural gas;
- a $53 million increase in operations, maintenance and other expense primarily due to increased shared services, cost to achieve merger expenses and pension settlement charge; and
- an $11 million increase in depreciation and amortization expense due to additional plant in service.

Partially offset by:

- a $7 million decrease in impairment charges due to an impairment of software recorded in the prior year.

Other Income and Expenses. The variance was driven by:

- a $25 million increase in other income and expenses, net primarily due to higher income from non-service components of employee benefit costs in the current year. For additional information on employee benefit costs, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans"; and
- a $13 million increase in equity earnings of unconsolidated affiliates from pipeline investments primarily due to favorable earnings partially offset by unfavorable impacts of the Tax Act in the prior year.

Income Tax Expense. The variance was primarily due to the lower statutory federal corporate tax rate under the Tax Act. The effective tax rates for the years ended December 31, 2018, and 2017 were 22.3 percent and 30.8 percent, respectively. The decrease in the effective tax rate was primarily due to the lower statutory federal corporate tax rate under the Tax Act.

Matters Impacting Future Results

Within this Item 7, see the Tax Act section above as well as Liquidity and Capital Resources below for discussion of risks associated with the Tax Act.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Preparation of financial statements requires the application of accounting policies, judgments, assumptions and estimates that can significantly affect the reported results of operations, cash flows or the amounts of assets and liabilities recognized in the financial statements. Judgments made include the likelihood of success of particular projects, possible legal and regulatory challenges, earnings assumptions on pension and other benefit fund investments and anticipated recovery of costs, especially through regulated operations.

Management discusses these policies, estimates and assumptions with senior members of management on a regular basis and provides periodic updates on management decisions to the Audit Committee. Management believes the areas described below require significant judgment in the application of accounting policy or in making estimates and assumptions that are inherently uncertain and that may change in subsequent periods.

For further information, see Note 1 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies."

Regulated Operations Accounting

Substantially all of Duke Energy's regulated operations meet the criteria for application of regulated operations accounting treatment. As a result, Duke Energy is required to record assets and liabilities that would not be recorded for nonregulated entities. Regulatory assets generally represent incurred costs that have been deferred because such costs are probable of future recovery in customer rates. Regulatory liabilities are recorded when it is probable that a regulator will require Duke Energy to make refunds to customers or reduce rates to customers for previous collections or deferred revenue for costs that have yet to be incurred.

Management continually assesses whether recorded regulatory assets are probable of future recovery by considering factors such as:

- applicable regulatory environment changes;
- historical regulatory treatment for similar costs in Duke Energy's jurisdictions;
- litigation of rate orders;
- recent rate orders to other regulated entities;
- levels of actual return on equity compared to approved rates of return on equity; and
- the status of any pending or potential deregulation legislation.

If future recovery of costs ceases to be probable, asset write-offs would be recognized in operating income. Additionally, regulatory agencies can provide flexibility in the manner and timing of the depreciation of property, plant and equipment, recognition of asset retirement costs and amortization of regulatory assets, or may disallow recovery of all or a portion of certain assets.

As required by regulated operations accounting rules, significant judgment can be required to determine if an otherwise recognizable incurred cost qualifies to be deferred for future recovery as a regulatory asset. Significant judgment can also be required to determine if revenues previously recognized are for entity specific costs that are no longer expected to be incurred or have not yet been incurred and are therefore a regulatory liability.

Goodwill Impairment Assessments

Duke Energy performed its annual goodwill impairment tests for all reporting units as of August 31, 2018, and all of the reporting units' estimated fair value of equity substantially exceeded the carrying value of equity, except for the Commercial Renewables reporting units, which recorded impairment charges of $93 million. The fair values of the reporting units were calculated using a weighted combination of the income approach, which estimates fair value based on discounted cash flows, and the market approach, which estimates fair value based on market comparables within the utility and energy industries.

Estimated future cash flows under the income approach are based on Duke Energy's internal business plan. Significant assumptions used are growth rates, future rates of return expected to result from ongoing rate regulation and discount rates. Management determines the appropriate discount rate for each of its reporting units based on the WACC for each individual reporting unit. The WACC takes into account both the after-tax cost of debt and cost of equity. A major component of the cost of equity is the current risk-free rate on 20-year U.S. Treasury bonds. In the 2018 impairment tests, Duke Energy considered implied WACCs for certain peer companies in determining the appropriate WACC rates to use in its analysis. As each reporting unit has a different risk profile based on the nature of its operations, including factors such as regulation, the WACC for each reporting unit may differ. Accordingly, the WACCs were adjusted, as appropriate, to account for company specific risk premiums. The discount rates used for calculating the fair values as of August 31, 2018, for each of Duke Energy's reporting units ranged from 5.5 percent to 6.9 percent. The underlying assumptions and estimates are made as of a point in time. Subsequent changes, particularly changes in the discount rates, authorized regulated rates of return or growth rates inherent in management's estimates of future cash flows, could result in future impairment charges.

One of the most significant assumptions utilized in determining the fair value of reporting units under the market approach is implied market multiples for certain peer companies. Management selects comparable peers based on each peer's primary business mix, operations, and market capitalization compared to the applicable reporting unit and calculates implied market multiples based on available projected earnings guidance and peer company market values as of August 31.

Duke Energy primarily operates in environments that are rate-regulated. In such environments, revenue requirements are adjusted periodically by regulators based on factors including levels of costs, sales volumes and costs of capital. Accordingly, Duke Energy's regulated utilities operate to some degree with a buffer from the direct effects, positive or negative, of significant swings in market or economic conditions. However, significant changes in discount rates over a prolonged period may have a material impact on the fair value of equity.

For further information, see Note 11 to the Consolidated Financial Statements, "Goodwill and Intangible Assets."

Asset Retirement Obligations

AROs are recognized for legal obligations associated with the retirement of property, plant and equipment at the present value of the projected liability in the period in which it is incurred, if a reasonable estimate of fair value can be made.

The present value of the initial obligation and subsequent updates are based on discounted cash flows, which include estimates regarding timing of future cash flows, selection of discount rates and cost escalation rates, among other factors. These estimates are subject to change.

Obligations for nuclear decommissioning are based on site-specific cost studies. Duke Energy Carolinas and Duke Energy Progress assume prompt dismantlement of the nuclear facilities after operations are ceased. Duke Energy Florida assumes Crystal River Unit 3 will be placed into a safe storage configuration until eventual dismantlement is completed by 2074. Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida also assume that spent fuel will be stored on-site until such time that it can be transferred to a yet to be built DOE facility.

Obligations for closure of ash basins are based upon discounted cash flows of estimated costs for site-specific plans, if known, or probability weightings of the potential closure methods if the closure plans are under development and multiple closure options are being considered and evaluated on a site-by-site basis.

For further information, see Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations."

Long-Lived Asset Impairment Assessments, Excluding Regulated Operations

Duke Energy evaluates property, plant and equipment for impairment when events or changes in circumstances (such as a significant change in cash flow projections or the determination that it is more likely than not that an asset or asset group will be sold) indicate the carrying value of such assets may not be recoverable. The determination of whether an impairment has occurred is based on an estimate of undiscounted future cash flows attributable to the assets, as compared with their carrying value.

Performing an impairment evaluation involves a significant degree of estimation and judgment in areas such as identifying circumstances that indicate an impairment may exist, identifying and grouping affected assets and developing the undiscounted future cash flows. If an impairment has occurred, the amount of the impairment recognized is determined by estimating the fair value and recording a loss if the carrying value is greater than the fair value. Additionally, determining fair value requires probability weighting future cash flows to reflect expectations about possible variations in their amounts or timing and the selection of an appropriate discount rate. Although cash flow estimates are based on relevant information available at the time the estimates are made, estimates of future cash flows are, by nature, highly uncertain and may vary significantly from actual results.

When determining whether an asset or asset group has been impaired, management groups assets at the lowest level that has discrete cash flows.

For further information, see Note 10 to the Consolidated Financial Statements, "Property, Plant and Equipment."

Equity Method Investments

Equity method investments are assessed for impairment when conditions exist that indicate that the fair value of the investment is less than book value. If the decline in value is considered to be other-than-temporary, an impairment charge is recorded and the investment is written down to its estimated fair value, which establishes a new cost basis in the investment.

Events or changes in circumstances are monitored that may indicate, in management's judgment, the carrying value of such investments may have experienced an other-than-temporary decline in value. The fair value of equity method investments is generally estimated using an income approach where significant judgments and assumptions include expected future cash flows, the appropriate discount rate, and probability weighted-scenarios, if applicable. In certain instances, a market approach may also be used to estimate the fair value of the equity method investment.

Events or changes in circumstances that may be indicative of an other-than-temporary decline in value will vary by investment, but may include:

- Significant delays in or failure to complete significant growth projects of investees;
- Adverse regulatory actions expected to substantially reduce the investee's product demand or profitability;
- Expected financial performance significantly worse than anticipated when initially invested;
- Prolonged period the fair value is below carrying value;
- A significant or sustained decline in the market value of an investee;
- Lower than expected cash distributions from investees;
- Significant asset impairments or operating losses recognized by investees; and
- Loss of significant customers or suppliers with no immediate prospects for replacement.

ACP

As of December 31, 2018, the carrying value of the equity method investment in ACP is $0.8 billion, and Duke Energy's maximum exposure to loss for its guarantee of the ACP revolving credit facility is $0.7 billion. During the fourth quarter of 2018, ACP received several adverse court rulings as described in Note 4 to the Consolidated Financial Statements, "Regulatory Matters." As a result, Duke Energy evaluated this investment for impairment and determined that fair value approximated carrying value and therefore no impairment was necessary.

Duke Energy estimated the fair value of its investment in ACP using an income approach that primarily considered probability-weighted scenarios of discounted future net cash flows based on the most recent estimate of total construction costs and revenues. These scenarios included assumptions of various court decisions and the impact those decisions may have on the timing and extent of investment, including scenarios assuming the full resolution of permitting issues in addition to a scenario where the project does not proceed. Most of the scenarios reflect phased in-service date assumptions. Certain scenarios within the analysis also included growth expectations from additional compression or other expansion opportunities and reopeners for pricing. A discount rate of 6.1 percent was used in the analysis. Higher probabilities were generally assigned to those scenarios where court approvals were received and the project moves forward under reasonable timelines reflecting interim rates and either current contracted pricing provisions, or prices subject to the reopeners. A very low probability was assigned to the scenario where the project does not proceed.

Judgments and assumptions are inherent in our estimates of future cash flows, discount rates, growth assumptions, and the likelihood of various scenarios. It is reasonably possible that future unfavorable developments, such as a reduced likelihood of success with court approvals, increased estimates of construction costs, material increases in the discount rate, important feedback on customer price increases or further significant delays, could result in a future impairment. The use of alternate judgments and assumptions could result in a different calculation of fair value, which could ultimately result in the recognition of an impairment charge in the consolidated financial statements.

For further information, see Note 12 to the Consolidated Financial Statements, “Investments in Unconsolidated Affiliates.”

Pension and Other Post-Retirement Benefits

The calculation of pension expense, other post-retirement benefit expense and net pension and other post-retirement assets or liabilities require the use of assumptions and election of permissible accounting alternatives. Changes in assumptions can result in different expense and reported asset or liability amounts and future actual experience can differ from the assumptions. Duke Energy believes the most critical assumptions for pension and other post-retirement benefits are:

- the expected long-term rate of return on plan assets;
- the assumed discount rate applied to future projected benefit payments; and
- the heath care cost trend rate.

Duke Energy elects to amortize net actuarial gain or loss amounts that are in excess of 10 percent of the greater of the market-related value of plan assets or the plan's projected benefit obligation, into net pension or other post-retirement benefit expense over the average remaining service period of active participants expected to benefit under the plan. If all or almost all of a plan's participants are inactive, the average remaining life expectancy of the inactive participants is used instead of average remaining service period. Prior service cost or credit, which represents an increase or decrease in a plan's pension benefit obligation resulting from plan amendment, is amortized on a straight-line basis over the average expected remaining service period of active participants expected to benefit under the plan. If all or almost all of a plan's participants are inactive, the average remaining life expectancy of the inactive participants is used instead of average remaining service period.

As of December 31, 2018, Duke Energy assumes pension and other post-retirement plan assets will generate a long-term rate of return of 6.85 percent. The expected long-term rate of return was developed using a weighted average calculation of expected returns based primarily on future expected returns across asset classes considering the use of active asset managers, where applicable. The asset allocation targets were set after considering the investment objective and the risk profile. Equity securities are held for their higher expected returns. Debt securities are primarily held to hedge the qualified pension liability. Real assets, return-seeking fixed income, hedge funds and other global securities are held for diversification. Investments within asset classes are diversified to achieve broad market participation and reduce the impact of individual managers on investments.

Duke Energy discounted its future U.S. pension and other post-retirement obligations using a rate of 4.3 percent as of December 31, 2018. Discount rates used to measure benefit plan obligations for financial reporting purposes reflect rates at which pension benefits could be effectively settled. As of December 31, 2018, Duke Energy determined its discount rate for U.S. pension and other post-retirement obligations using a bond selection-settlement portfolio approach. This approach develops a discount rate by selecting a portfolio of high quality corporate bonds that generate sufficient cash flow to provide for projected benefit payments of the plan. The selected bond portfolio is derived from a universe of non-callable corporate bonds rated Aa quality or higher. After the bond portfolio is selected, a single interest rate is determined that equates the present value of the plan's projected benefit payments discounted at this rate with the market value of the bonds selected.

Future changes in plan asset returns, assumed discount rates and various other factors related to the participants in Duke Energy's pension and post-retirement plans will impact future pension expense and liabilities. Duke Energy cannot predict with certainty what these factors will be in the future. The following table presents the approximate effect on Duke Energy's 2018 pretax pension expense, pretax other post-retirement expense, pension obligation and other post-retirement benefit obligation if a 0.25 percent change in rates were to occur.

	Qualified and Non-Qualified Pension Plans		Other Post-Retirement Plans	
(in millions)	**0.25%**	**(0.25)%**	**0.25%**	**(0.25)%**
Effect on 2018 pretax pension and other post-retirement expense				
Expected long-term rate of return	$ (22)	$ 22	$ (1)	$ 1
Discount rate	(12)	12	1	(1)
Effect on pension and other post-retirement benefit obligation at December 31, 2018				
Discount rate	(183)	188	(13)	13

Duke Energy's other post-retirement plan uses a health care cost trend rate covering both pre- and post-age 65 retired plan participants, which is comprised of a medical care cost trend rate, which reflects the near- and long-term expectation of increases in medical costs, and a prescription drug cost trend rate, which reflects the near- and long-term expectation of increases in prescription drug costs. As of December 31, 2018, the health care cost trend rate was 6.5 percent, trending down to 4.75 percent by 2024. The following table presents the approximate effect on Duke Energy's 2018 pretax other post-retirement expense and other post-retirement benefit obligation if a 1 percentage point change in the health care cost trend rate were to occur. These plans are closed to new employees.

	Other Post-Retirement Plans	
(in millions)	**1%**	**(1)%**
Effect on 2018 other post-retirement expense	$ 1	$ (1)
Effect on other post-retirement benefit obligation at December 31, 2018	22	(20)

For further information, see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans."

LIQUIDITY AND CAPITAL RESOURCES

Sources and Uses of Cash

Duke Energy relies primarily upon cash flows from operations, debt and equity issuances and its existing cash and cash equivalents to fund its liquidity and capital requirements. Duke Energy's capital requirements arise primarily from capital and investment expenditures, repaying long-term debt and paying dividends to shareholders.

Among other provisions, the Tax Act lowers the corporate federal income tax rate from 35 to 21 percent and eliminates bonus depreciation for regulated utilities. For Duke Energy's regulated operations, the reduction in federal income taxes is expected to result in lower regulated customer rates. However, due to its existing NOL position and other tax credits, Duke Energy does not expect to be a significant federal cash tax payer through at least 2022. As a result, any reduction in customer rates could cause a material reduction in consolidated cash flows from operations in the short term. Over time, the reduction in deferred tax liabilities resulting from the Tax Act will increase Duke Energy's regulated rate base investments and customer rates. Impacts of Tax Act to Duke Energy's cash flows and credit metrics are subject to the regulatory actions of its state commissions and the FERC. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

The Subsidiary Registrants generally maintain minimal cash balances and use short-term borrowings to meet their working capital needs and other cash requirements. The Subsidiary Registrants, excluding Progress Energy (Parent), support their short-term borrowing needs through participation with Duke Energy and certain of its other subsidiaries in a money pool arrangement. The companies with short-term funds may provide short-term loans to affiliates participating under this arrangement. See Note 6 to the Consolidated Financial Statements, "Debt and Credit Facilities," for additional discussion of the money pool arrangement.

Duke Energy and the Subsidiary Registrants, excluding Progress Energy (Parent), may also use short-term debt, including commercial paper and the money pool, as a bridge to long-term debt financings. The levels of borrowing may vary significantly over the course of the year due to the timing of long-term debt financings and the impact of fluctuations in cash flows from operations. From time to time, Duke Energy's current liabilities exceed current assets resulting from the use of short-term debt as a funding source to meet scheduled maturities of long-term debt, as well as cash needs, which can fluctuate due to the seasonality of its businesses.

Equity Issuance

In order to strengthen its balance sheet and credit metrics and bolster cash flows, Duke Energy plans to issue $500 million of common stock equity per year through 2023 through the DRIP and ATM programs. See Note 19 to the Consolidated Financial Statements, "Common Stock," for further information regarding Duke Energy's equity issuances in 2018.

Credit Facilities and Registration Statements

See Note 6 to the Consolidated Financial Statements, "Debt and Credit Facilities," for further information regarding credit facilities and shelf registration statements available to Duke Energy and the Duke Energy Registrants.

CAPITAL EXPENDITURES

Duke Energy continues to focus on reducing risk and positioning its business for future success and will invest principally in its strongest business sectors. Duke Energy's projected capital and investment expenditures, including debt AFUDC and capitalized interest, for the next three fiscal years are included in the table below.

(in millions)	2019	2020	2021
New generation	$ 375	$ 125	$ 220
Regulated renewables	415	410	710
Environmental	240	125	35
Nuclear fuel	430	505	390
Major nuclear	305	315	250
Customer additions	505	480	475
Grid modernization and other transmission and distribution projects	2,835	3,160	2,980
Maintenance and other	3,395	2,605	2,390
Total Electric Utilities and Infrastructure	8,500	7,725	7,450
Gas Utilities and Infrastructure	1,675	2,000	1,600
Commercial Renewables and Other	925	825	625
Total projected capital and investment expenditures	$ 11,100	$ 10,550	$ 9,675

DEBT MATURITIES

See Note 6 to the Consolidated Financial Statements, "Debt and Credit Facilities," for further information regarding significant components of Current Maturities of Long-Term Debt on the Consolidated Balance Sheets.

DIVIDEND PAYMENTS

In 2018, Duke Energy paid quarterly cash dividends for the 92nd consecutive year and expects to continue its policy of paying regular cash dividends in the future. There is no assurance as to the amount of future dividends because they depend on future earnings, capital requirements, financial condition and are subject to the discretion of the Board of Directors.

Duke Energy targets a dividend payout ratio of between 65 and 75 percent, based upon adjusted diluted EPS, and expects this trend to continue through 2023. In 2017 and 2018, Duke Energy increased the dividend by approximately 4 percent annually, and the company remains committed to continued growth of the dividend.

Dividend and Other Funding Restrictions of Duke Energy Subsidiaries

As discussed in Note 4 to the Consolidated Financial Statements, “Regulatory Matters,” Duke Energy’s wholly owned public utility operating companies have restrictions on the amount of funds that can be transferred to Duke Energy through dividends, advances or loans as a result of conditions imposed by various regulators in conjunction with merger transactions. Duke Energy Progress and Duke Energy Florida also have restrictions imposed by their first mortgage bond indentures and Articles of Incorporation, which in certain circumstances, limit their ability to make cash dividends or distributions on common stock. Additionally, certain other Duke Energy subsidiaries have other restrictions, such as minimum working capital and tangible net worth requirements pursuant to debt and other agreements that limit the amount of funds that can be transferred to Duke Energy. At December 31, 2018, the amount of restricted net assets of wholly owned subsidiaries of Duke Energy that may not be distributed to Duke Energy in the form of a loan or dividend does not exceed a material amount of Duke Energy’s net assets. Duke Energy does not have any legal or other restrictions on paying common stock dividends to shareholders out of its consolidated equity accounts. Although these restrictions cap the amount of funding the various operating subsidiaries can provide to Duke Energy, management does not believe these restrictions will have a significant impact on Duke Energy’s ability to access cash to meet its payment of dividends on common stock and other future funding obligations.

CASH FLOWS FROM OPERATING ACTIVITIES

Cash flows from operations of Electric Utilities and Infrastructure and Gas Utilities and Infrastructure are primarily driven by sales of electricity and natural gas, respectively, and costs of operations. These cash flows from operations are relatively stable and comprise a substantial portion of Duke Energy's operating cash flows. Weather conditions, working capital and commodity price fluctuations and unanticipated expenses including unplanned plant outages, storms, legal costs and related settlements can affect the timing and level of cash flows from operations.

Duke Energy believes it has sufficient liquidity resources through the commercial paper markets, and ultimately, the Master Credit Facility, to support these operations. Cash flows from operations are subject to a number of other factors, including, but not limited to, regulatory constraints, economic trends and market volatility (see Item 1A, "Risk Factors," for additional information).

At December 31, 2018, Duke Energy had cash and cash equivalents and short-term investments of $442 million.

DEBT ISSUANCES

Depending on availability based on the issuing entity, the credit rating of the issuing entity, and market conditions, the Subsidiary Registrants prefer to issue first mortgage bonds and secured debt, followed by unsecured debt. This preference is the result of generally higher credit ratings for first mortgage bonds and secured debt, which typically result in lower interest costs. Duke Energy Corporation primarily issues unsecured debt.

In 2019, Duke Energy anticipates issuing additional debt of $7.5 billion, primarily for the purpose of funding capital expenditures and debt maturities. See to Note 6 to the Consolidated Financial Statements, "Debt and Credit Facilities," for further information regarding significant debt issuances in 2018.

Duke Energy's capitalization is balanced between debt and equity as shown in the table below.

	Projected 2019	Actual 2018	Actual 2017
Equity	44%	**43%**	43%
Debt	56%	**57%**	57%

Restrictive Debt Covenants

Duke Energy's debt and credit agreements contain various financial and other covenants. Duke Energy's Master Credit Facility contains a covenant requiring the debt-to-total capitalization ratio to not exceed 65 percent for each borrower, excluding Piedmont, and 70 percent for Piedmont. Failure to meet those covenants beyond applicable grace periods could result in accelerated due dates and/or termination of the agreements or sublimits thereto. As of December 31, 2018, each of the Duke Energy Registrants was in compliance with all covenants related to their debt agreements. In addition, some credit agreements may allow for acceleration of payments or termination of the agreements due to nonpayment, or acceleration of other significant indebtedness of the borrower or some of its subsidiaries. None of the debt or credit agreements contain material adverse change clauses.

Credit Ratings

Moody's, S&P and Fitch Ratings, Inc. provide credit ratings for various Duke Energy Registrants. The following table includes Duke Energy and certain subsidiaries' credit ratings and ratings outlook as of February 2019.

	Moody's	S&P	Fitch
Duke Energy Corporation	Stable	Stable	Stable
Issuer Credit Rating	Baa1	A-	BBB+
Senior Unsecured Debt	Baa1	BBB+	BBB+
Commercial Paper	P-2	A-2	F-2
Duke Energy Carolinas	Stable	Stable	N/A
Senior Secured Debt	Aa2	A	N/A
Senior Unsecured Debt	A1	A-	N/A
Progress Energy	Stable	Stable	N/A
Senior Unsecured Debt	Baa1	BBB+	N/A
Duke Energy Progress	Stable	Stable	N/A
Senior Secured Debt	Aa3	A	N/A
Duke Energy Florida	Stable	Stable	N/A
Senior Secured Debt	A1	A	N/A
Senior Unsecured Debt	A3	A-	N/A
Duke Energy Ohio	Stable	Stable	N/A
Senior Secured Debt	A2	A	N/A
Senior Unsecured Debt	Baa1	A-	N/A
Duke Energy Indiana	Stable	Stable	N/A
Senior Secured Debt	Aa3	A	N/A
Senior Unsecured Debt	A2	A-	N/A
Duke Energy Kentucky	Stable	Stable	N/A
Senior Unsecured Debt	Baa1	A-	N/A
Piedmont Natural Gas	Stable	Stable	N/A
Senior Unsecured	A3	A-	N/A

Credit ratings are intended to provide credit lenders a framework for comparing the credit quality of securities and are not a recommendation to buy, sell or hold. The Duke Energy Registrants' credit ratings are dependent on the rating agencies' assessments of their ability to meet their debt principal and interest obligations when they come due. If, as a result of market conditions or other factors, the Duke Energy Registrants are unable to maintain current balance sheet strength, or if earnings and cash flow outlook materially deteriorates, credit ratings could be negatively impacted.

Cash Flow Information

The following table summarizes Duke Energy's cash flows for the three most recently completed fiscal years.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Cash flows provided by (used in):			
Operating activities	**$ 7,186**	$ 6,624	$ 6,863
Investing activities	**(10,060)**	(8,442)	(11,528)
Financing activities	**2,960**	1,782	4,251
Changes in cash and cash equivalents included in assets held for sale	**—**	—	474
Net increase (decrease) in cash, cash equivalents and restricted cash	**86**	(36)	60
Cash, cash equivalents and restricted cash at beginning of period	**505**	541	481
Cash, cash equivalents and restricted cash at end of period	**$ 591**	$ 505	$ 541

OPERATING CASH FLOWS

The following table summarizes key components of Duke Energy's operating cash flows for the three most recently completed fiscal years.

	Years Ended December 31,				
			Variance 2018 vs.		Variance 2017 vs.
(in millions)	2018	2017	2017	2016	2016
Net income	**$ 2,644**	$ 3,064	$ (420)	$ 2,170	$ 894
Non-cash adjustments to net income	**6,484**	5,380	1,104	5,305	75
Contributions to qualified pension plans	**(141)**	(19)	(122)	(155)	136
Payments for AROs	**(533)**	(571)	38	(608)	37
Payment for disposal of other assets	**(105)**	—	(105)	—	—
Working capital	**(1,163)**	(1,230)	67	151	(1,381)
Net cash provided by operating activities	**$ 7,186**	$ 6,624	$ 562	$ 6,863	$ (239)

For the year ended December 31, 2018, compared to 2017, the variance was driven primarily by:

- a $684 million increase in net income after adjustment for non-cash items primarily due to favorable weather and increased pricing and volumes in the current period; and
- a $38 million decrease in payments to AROs.

Offset by:

- a $122 million increase in contributions to qualified pension plans; and
- a $105 million payment for disposal of Beckjord.

For the year ended December 31, 2017, compared to 2016, the variance was driven primarily by:

- a $1,381 million decrease in working capital due to weather, payment of merger transaction and integration related costs and increased property tax payments in 2017.

Offset by:

- a $969 million increase in net income after non-cash adjustments primarily due to the inclusion of Piedmont's earnings for a full year, favorable pricing and weather-normal retail volumes driven by the residential class in the Electric Utilities and Infrastructure segment combined with continued strong cost control;
- a $136 million decrease in contributions to qualified pension plans; and
- a $37 million decrease in payments to AROs.

INVESTING CASH FLOWS

The following table summarizes key components of Duke Energy's investing cash flows for the three most recently completed fiscal years.

	Years Ended December 31,				
			Variance 2018 vs.		Variance 2017 vs.
(in millions)	2018	2017	2017	2016	2016
Capital, investment and acquisition expenditures	**$ (9,668)**	$ (8,198)	$ (1,470)	$ (13,215)	$ 5,017
Debt and equity securities, net	**(15)**	27	(42)	83	(56)
Net proceeds from the sales of discontinued operations and other assets, net of cash divested	**41**	—	41	1,418	(1,418)
Other investing items	**(418)**	(271)	(147)	186	(457)
Net cash used in investing activities	**$ (10,060)**	$ (8,442)	$ (1,618)	$ (11,528)	$ 3,086

The primary use of cash related to investing activities is capital, investment and acquisition expenditures, detailed by reportable business segment in the following table.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Electric Utilities and Infrastructure	**$ 8,086**	$ 7,024	$ 6,649
Gas Utilities and Infrastructure	**1,133**	907	5,519
Commercial Renewables	**193**	92	857
Other	**256**	175	190
Total capital, investment and acquisition expenditures	**$ 9,668**	$ 8,198	$ 13,215

For the year ended December 31, 2018, compared to 2017, the variance was driven primarily by:

- a $1,470 million increase in capital, investment and acquisition expenditures in all reportable business segments, including expenditures related to W.S. Lee CC, Asheville and Citrus County CC at Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, respectively.

For the year ended December 31, 2017, compared to 2016, the variance was driven primarily by:

- a $5,017 million decrease in capital, investment and acquisition expenditures mainly due to the Piedmont acquisition in the prior year.

Partially offset by:

- a $1,418 million decrease in net proceeds from sales of discontinued operations due to the prior year sale of the International business.

FINANCING CASH FLOWS

The following table summarizes key components of Duke Energy's financing cash flows for the three most recently completed fiscal years.

	Years Ended December 31,				
			Variance 2018 vs.		**Variance 2017 vs.**
(in millions)	**2018**	**2017**	**2017**	**2016**	**2016**
Issuance of common stock	**$ 1,838**	$ —	$ 1,838	$ 731	$ (731)
Issuances of long-term debt, net	**2,393**	4,593	(2,200)	7,315	(2,722)
Notes payable and commercial paper	**1,171**	(362)	1,533	(1,447)	1,085
Dividends paid	**(2,471)**	(2,450)	(21)	(2,332)	(118)
Other financing items	**29**	1	28	(16)	17
Net cash provided by financing activities	**$ 2,960**	$ 1,782	$ 1,178	$ 4,251	$ (2,469)

For the year ended December 31, 2018, compared to 2017, the variance was driven primarily by:

- a $1,838 million increase in proceeds from the issuance of common stock; and
- a $1,533 million increase in net borrowings from notes payable and commercial paper primarily due to increased funding requirements for capital expenditures and storm costs.

Partially offset by:

- a $2,200 million net decrease in proceeds from issuances of long-term debt primarily due to timing related to refinancing of existing maturities, fund growth and general corporate needs.

For the year ended December 31, 2017, compared to 2016, the variance was driven primarily by:

- a $2,722 million net decrease in proceeds from issuances of long-term debt driven principally by the prior year $3,750 million of senior unsecured notes used to fund a portion of the Piedmont acquisition, offset primarily by $900 million of first mortgage bonds issued by Duke Energy Florida in the current year to fund capital expenditures for ongoing construction and capital maintenance and for general corporate purposes;
- a $731 million decrease in proceeds from stock issuances used to fund a portion of the Piedmont acquisition in 2016; and
- a $118 million current year increase in dividends paid.

Partially offset by:

- a $1,085 million decrease in net borrowings from notes payable and commercial paper primarily due to the use of proceeds from $1,294 million nuclear asset-recovery bonds issued at Duke Energy Florida in 2016 to pay down outstanding commercial paper.

Off-Balance Sheet Arrangements

Duke Energy and certain of its subsidiaries enter into guarantee arrangements in the normal course of business to facilitate commercial transactions with third parties. These arrangements include performance guarantees, standby letters of credit, debt guarantees, surety bonds and indemnifications.

Most of the guarantee arrangements entered into by Duke Energy enhance the credit standing of certain subsidiaries, non-consolidated entities or less than wholly owned entities, enabling them to conduct business. As such, these guarantee arrangements involve elements of performance and credit risk, which are not always included on the Consolidated Balance Sheets. The possibility of Duke Energy, either on its own or on behalf of Spectra Energy Capital, LLC (Spectra Capital) through indemnification agreements entered into as part of the January 2, 2007, spin-off of Spectra Energy Corp, having to honor its contingencies is largely dependent upon the future operations of the subsidiaries, investees and other third parties, or the occurrence of certain future events.

Duke Energy performs ongoing assessments of its respective guarantee obligations to determine whether any liabilities have been incurred as a result of potential increased non-performance risk by third parties for which Duke Energy has issued guarantees. See Note 7 to the Consolidated Financial Statements, “Guarantees and Indemnifications,” for further details of the guarantee arrangements. Issuance of these guarantee arrangements is not required for the majority of Duke Energy’s operations. Thus, if Duke Energy discontinued issuing these guarantees, there would not be a material impact to the consolidated results of operations, cash flows or financial position.

Other than the guarantee arrangements discussed above, normal operating lease arrangements and off-balance sheet debt related to non-consolidated VIEs, Duke Energy does not have any material off-balance sheet financing entities or structures. For additional information, see Notes 5 and 17 to the Consolidated Financial Statements, “Commitments and Contingencies" and "Variable Interest Entities," respectively.

Contractual Obligations

Duke Energy enters into contracts that require payment of cash at certain specified periods, based on certain specified minimum quantities and prices. The following table summarizes Duke Energy’s contractual cash obligations as of December 31, 2018.

	Payments Due By Period				
(in millions)	Total	Less than 1 year (2019)	2-3 years (2020 & 2021)	4-5 years (2022 & 2023)	More than 5 years (2024 & beyond)
Long-term debt[a]	$ 52,446	$ 3,291	$ 8,311	$ 5,861	$ 34,983
Interest payments on long-term debt[b]	32,834	2,121	3,823	3,329	23,561
Capital leases[c]	1,428	170	351	330	577
Operating leases[c]	1,991	239	405	330	1,017
Purchase obligations:[d]					
Fuel and purchased power[e][f]	20,496	4,329	5,315	3,153	7,699
Other purchase obligations[g]	12,436	4,617	1,178	775	5,866
Nuclear decommissioning trust annual funding[h]	482	24	48	48	362
Land easements[i]	234	10	20	20	184
Total contractual cash obligations[j][k]	$ 122,347	$ 14,801	$ 19,451	$ 13,846	$ 74,249

(a) See Note 6 to the Consolidated Financial Statements, “Debt and Credit Facilities.”

(b) Interest payments on variable rate debt instruments were calculated using December 31, 2018, interest rates and holding them constant for the life of the instruments.

(c) See Note 5 to the Consolidated Financial Statements, “Commitments and Contingencies.” Amounts in the table above include the interest component of capital leases based on the interest rates stated in the lease agreements and exclude certain related executory costs. Amounts exclude contingent lease obligations.

(d) Current liabilities, except for current maturities of long-term debt, and purchase obligations reflected on the Consolidated Balance Sheets have been excluded from the above table.

(e) Includes firm capacity payments that provide Duke Energy with uninterrupted firm access to electricity transmission capacity and natural gas transportation contracts, as well as undesignated contracts and contracts that qualify as NPNS. For contracts where the price paid is based on an index, the amount is based on market prices at December 31, 2018, or the best projections of the index. For certain of these amounts, Duke Energy may settle on a net cash basis since Duke Energy has entered into payment netting arrangements with counterparties that permit Duke Energy to offset receivables and payables with such counterparties.

(f) Amounts exclude obligations under the OVEC purchase power agreement. See Note 17 to the Consolidated Financial Statements, "Variable Interest Entities," for additional information.

(g) Includes contracts for software, telephone, data and consulting or advisory services. Amount also includes contractual obligations for EPC costs for new generation plants, wind and solar facilities, plant refurbishments, maintenance and day-to-day contract work and commitments to buy certain products. Amount excludes certain open purchase orders for services that are provided on demand, for which the timing of the purchase cannot be determined.

(h) Related to future annual funding obligations to NDTF through nuclear power stations' relicensing dates. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations."

(i) Related to Commercial Renewables wind and solar facilities.

(j) Unrecognized tax benefits of $24 million are not reflected in this table as Duke Energy cannot predict when open income tax years will close with completed examinations. See Note 23 to the Consolidated Financial Statements, "Income Taxes."

(k) The table above excludes reserves for litigation, environmental remediation, asbestos-related injuries and damages claims and self-insurance claims (see Note 5 to the Consolidated Financial Statements, “Commitments and Contingencies”) because Duke Energy is uncertain as to the timing and amount of cash payments that will be required. Additionally, the table above excludes annual insurance premiums that are necessary to operate the business, including nuclear insurance (see Note 5 to the Consolidated Financial Statements, “Commitments and Contingencies”), funding of pension and other post-retirement benefit plans (see Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans"), AROs, including ash management expenditures (see Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations") and regulatory liabilities (see Note 4 to the Consolidated Financial Statements, “Regulatory Matters”) because the amount and timing of the cash payments are uncertain. Also excluded are Deferred Income Taxes and ITCs recorded on the Consolidated Balance Sheets since cash payments for income taxes are determined based primarily on taxable income for each discrete fiscal year.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Risk Management Policies

The Enterprise Risk Management policy framework at Duke Energy includes strategy, operational, project execution and financial or transaction related risks. Enterprise Risk Management includes market risk as part of the financial and transaction related risks in its framework.

Duke Energy is exposed to market risks associated with commodity prices, interest rates and equity prices. Duke Energy has established comprehensive risk management policies to monitor and manage these market risks. Duke Energy’s Chief Executive Officer and Chief Financial Officer are responsible for the overall approval of market risk management policies and the delegation of approval and authorization levels. The Finance and Risk Management Committee of the Board of Directors receives periodic updates from the Chief Risk Officer and other members of management on market risk positions, corporate exposures and overall risk management activities. The Chief Risk Officer is responsible for the overall governance of managing commodity price risk, including monitoring exposure limits.

The following disclosures about market risk contain forward-looking statements that involve estimates, projections, goals, forecasts, assumptions, risks and uncertainties that could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements. See Item 1A, “Risk Factors,” and “Cautionary Statement Regarding Forward-Looking Information” for a discussion of the factors that may impact any such forward-looking statements made herein.

Commodity Price Risk

Duke Energy is exposed to the impact of market fluctuations in the prices of electricity, coal, natural gas and other energy-related products marketed and purchased as a result of its ownership of energy-related assets. Duke Energy’s exposure to these fluctuations is limited by the cost-based regulation of its regulated operations as these operations are typically allowed to recover substantially all of these costs through various cost-recovery clauses, including fuel clauses, formula based contracts, or other cost-sharing mechanisms. While there may be a delay in timing between when these costs are incurred and when they are recovered through rates, changes from year to year generally do not have a material impact on operating results of these regulated operations.

Price risk represents the potential risk of loss from adverse changes in the market price of electricity or other energy commodities. Duke Energy’s exposure to commodity price risk is influenced by a number of factors, including contract size, length, market liquidity, location and unique or specific contract terms. Duke Energy employs established policies and procedures to manage risks associated with these market fluctuations, which may include using various commodity derivatives, such as swaps, futures, forwards and options. For additional information, see Note 14 to the Consolidated Financial Statements, “Derivatives and Hedging.”

The inputs and methodologies used to determine the fair value of contracts are validated by an internal group separate from Duke Energy’s deal origination function. While Duke Energy uses common industry practices to develop its valuation techniques, changes in its pricing methodologies or the underlying assumptions could result in significantly different fair values and income recognition.

Hedging Strategies

Duke Energy closely monitors risks associated with commodity price changes on its future operations and, where appropriate, uses various commodity instruments such as electricity, coal and natural gas forward contracts and options to mitigate the effect of such fluctuations on operations. Duke Energy’s primary use of energy commodity derivatives is to hedge against exposure to the prices of power, fuel for generation and natural gas for customers.

The majority of instruments used to manage Duke Energy’s commodity price exposure are either not designated as hedges or do not qualify for hedge accounting. These instruments are referred to as undesignated contracts. Mark-to-market changes for undesignated contracts entered into by regulated businesses are reflected as regulatory assets or liabilities on the Consolidated Balance Sheets. Undesignated contracts entered into by unregulated businesses are marked-to-market each period, with changes in the fair value of the derivative instruments reflected in earnings.

Duke Energy may also enter into other contracts that qualify for the NPNS exception. When a contract meets the criteria to qualify as NPNS, Duke Energy applies such exception. Income recognition and realization related to NPNS contracts generally coincide with the physical delivery of the commodity. For contracts qualifying for the NPNS exception, no recognition of the contract’s fair value in the Consolidated Financial Statements is required until settlement of the contract as long as the transaction remains probable of occurring.

Generation Portfolio Risks

The Duke Energy Registrants optimize the value of their generation portfolios, which include generation assets, fuel and emission allowances. Modeled forecasts of future generation output and fuel requirements are based on forward power and fuel markets. The component pieces of the portfolio are bought and sold based on models and forecasts of generation in order to manage the economic value of the portfolio in accordance with the strategies of the business units.

For the Electric Utilities and Infrastructure segment, the generation portfolio not utilized to serve retail operations or committed load is subject to commodity price fluctuations. However, the impact on the Consolidated Statements of Operations is partially offset by mechanisms in these regulated jurisdictions that result in the sharing of net profits from these activities with retail customers.

Interest Rate Risk

Duke Energy is exposed to risk resulting from changes in interest rates as a result of its issuance or anticipated issuance of variable and fixed-rate debt and commercial paper. Duke Energy manages interest rate exposure by limiting variable-rate exposures to a percentage of total debt and by monitoring the effects of market changes in interest rates. Duke Energy also enters into financial derivative instruments, which may include instruments such as, but not limited to, interest rate swaps, swaptions and U.S. Treasury lock agreements to manage and mitigate interest rate risk exposure. See Notes 1, 6, 14 and 16 to the Consolidated Financial Statements, “Summary of Significant Accounting Policies,” “Debt and Credit Facilities,” “Derivatives and Hedging,” and “Fair Value Measurements.”

At December 31, 2018, Duke Energy had $1.2 billion of U.S. treasury lock agreements, $644 million notional amount of floating-to-fixed swaps outstanding, $500 million notional amount of fixed-to-floating swaps outstanding and $300 million forward-starting swaps outstanding. Duke Energy had $8.0 billion of unhedged long- and short-term floating interest rate exposure at December 31, 2018. The impact of a 100 basis point change in interest rates on pretax income is approximately $80 million at December 31, 2018. This amount was estimated by considering the impact of the hypothetical interest rates on variable-rate securities outstanding, adjusted for interest rate hedges as of December 31, 2018.

See Note 14, "Derivatives and Hedging," to the Consolidated Financial Statements for additional information about the forward-starting interest rate swaps related to the Piedmont acquisition.

Credit Risk

Credit risk represents the loss that the Duke Energy Registrants would incur if a counterparty fails to perform under its contractual obligations. Where exposed to credit risk, the Duke Energy Registrants analyze the counterparty's financial condition prior to entering into an agreement and monitor exposure on an ongoing basis. The Duke Energy Registrants establish credit limits where appropriate in the context of contractual arrangements and monitor such limits.

To reduce credit exposure, the Duke Energy Registrants seek to include netting provisions with counterparties, which permit the offset of receivables and payables with such counterparties. The Duke Energy Registrants also frequently use master agreements with credit support annexes to further mitigate certain credit exposures. The master agreements provide for a counterparty to post cash or letters of credit to the exposed party for exposure in excess of an established threshold. The threshold amount represents a negotiated unsecured credit limit for each party to the agreement, determined in accordance with the Duke Energy Registrants’ internal corporate credit practices and standards. Collateral agreements generally also provide that the inability to post collateral is sufficient cause to terminate contracts and liquidate all positions.

The Duke Energy Registrants also obtain cash or letters of credit from certain counterparties to provide credit support outside of collateral agreements, where appropriate, based on a financial analysis of the counterparty and the regulatory or contractual terms and conditions applicable to each transaction. See Note 14 to the Consolidated Financial Statements, “Derivatives and Hedging,” for additional information regarding credit risk related to derivative instruments.

The Duke Energy Registrants’ principal counterparties for its electric and natural gas businesses are regional transmission organizations, distribution companies, municipalities, electric cooperatives and utilities located throughout the U.S. The Duke Energy Registrants have concentrations of receivables from such entities throughout these regions. These concentrations of receivables may affect the Duke Energy Registrants’ overall credit risk in that risk factors can negatively impact the credit quality of the entire sector.

The Duke Energy Registrants are also subject to credit risk from transactions with their suppliers that involve prepayments in conjunction with outsourcing arrangements, major construction projects and certain commodity purchases. The Duke Energy Registrants’ credit exposure to such suppliers may take the form of increased costs or project delays in the event of non-performance. The Duke Energy Registrants' frequently require guarantees or letters of credit from suppliers to mitigate this credit risk.

Credit risk associated with the Duke Energy Registrants’ service to residential, commercial and industrial customers is generally limited to outstanding accounts receivable. The Duke Energy Registrants mitigate this credit risk by requiring customers to provide a cash deposit, letter of credit or surety bond until a satisfactory payment history is established, subject to the rules and regulations in effect in each retail jurisdiction, at which time the deposit is typically refunded. Charge-offs for retail customers have historically been insignificant to the operations of the Duke Energy Registrants and are typically recovered through retail rates. Management continually monitors customer charge-offs and payment patterns to ensure the adequacy of bad debt reserves. Duke Energy Ohio and Duke Energy Indiana sell certain of their accounts receivable and related collections through CRC, a Duke Energy consolidated variable interest entity. Losses on collection are first absorbed by the equity of CRC and next by the subordinated retained interests held by Duke Energy Ohio, Duke Energy Kentucky and Duke Energy Indiana. See Note 17 to the Consolidated Financial Statements, “Variable Interest Entities.” Duke Energy also provides certain non-tariff services, primarily to large commercial and industrial customers, in which incurred costs are intended to be recovered from the individual customer and therefore are not subject to rate recovery in the event of customer default. Customer credit worthiness is assessed prior to entering into these transactions.

Duke Energy's Commercial Renewables business segment enters into long-term agreements with certain creditworthy buyers that may not include the right to call for collateral in the event of a credit rating downgrade, and is therefore exposed to market price risk and credit risk related to these agreements. Credit concentration exists to certain counterparties on these agreements.

Duke Energy Carolinas has third-party insurance to cover certain losses related to asbestos-related injuries and damages above an aggregate self-insured retention. See Note 5 to the Consolidated Financial Statements, "Commitments and Contingencies" for information on asbestos-related injuries and damages claims.

The Duke Energy Registrants also have credit risk exposure through issuance of performance and financial guarantees, letters of credit and surety bonds on behalf of less than wholly owned entities and third parties. Where the Duke Energy Registrants have issued these guarantees, it is possible that they could be required to perform under these guarantee obligations in the event the obligor under the guarantee fails to perform. Where the Duke Energy Registrants have issued guarantees related to assets or operations that have been disposed of via sale, they attempt to secure indemnification from the buyer against all future performance obligations under the guarantees. See Note 7 to the Consolidated Financial Statements, "Guarantees and Indemnifications," for further information on guarantees issued by the Duke Energy Registrants.

Based on the Duke Energy Registrants' policies for managing credit risk, their exposures and their credit and other reserves, the Duke Energy Registrants do not currently anticipate a materially adverse effect on their consolidated financial position or results of operations as a result of non-performance by any counterparty.

Marketable Securities Price Risk

As described further in Note 15 to the Consolidated Financial Statements, "Investments in Debt and Equity Securities," Duke Energy invests in debt and equity securities as part of various investment portfolios to fund certain obligations. The vast majority of investments in equity securities are within the NDTF and assets of the various pension and other post-retirement benefit plans.

Pension Plan Assets

Duke Energy maintains investments to facilitate funding the costs of providing non-contributory defined benefit retirement and other post-retirement benefit plans. These investments are exposed to price fluctuations in equity markets and changes in interest rates. The equity securities held in these pension plans are diversified to achieve broad market participation and reduce the impact of any single investment, sector or geographic region. Duke Energy has established asset allocation targets for its pension plan holdings, which take into consideration the investment objectives and the risk profile with respect to the trust in which the assets are held. See Note 22 to the Consolidated Financial Statements, "Employee Benefit Plans," for additional information regarding investment strategy of pension plan assets.

A significant decline in the value of plan asset holdings could require Duke Energy to increase funding of its pension plans in future periods, which could adversely affect cash flows in those periods. Additionally, a decline in the fair value of plan assets, absent additional cash contributions to the plan, could increase the amount of pension cost required to be recorded in future periods, which could adversely affect Duke Energy's results of operations in those periods.

Nuclear Decommissioning Trust Funds

As required by the NRC, NCUC, PSCSC and FPSC, subsidiaries of Duke Energy maintain trust funds to fund the costs of nuclear decommissioning. As of December 31, 2018, these funds were invested primarily in domestic and international equity securities, debt securities, cash and cash equivalents and short-term investments. Per the NRC, Internal Revenue Code, NCUC, PSCSC and FPSC requirements, these funds may be used only for activities related to nuclear decommissioning. These investments are exposed to price fluctuations in equity markets and changes in interest rates. Duke Energy actively monitors its portfolios by benchmarking the performance of its investments against certain indices and by maintaining, and periodically reviewing, target allocation percentages for various asset classes.

Accounting for nuclear decommissioning recognizes that costs are recovered through retail and wholesale rates; therefore, fluctuations in investment prices do not materially affect the Consolidated Statements of Operations, as changes in the fair value of these investments are primarily deferred as regulatory assets or regulatory liabilities pursuant to Orders by the NCUC, PSCSC, FPSC and FERC. Earnings or losses of the fund will ultimately impact the amount of costs recovered through retail and wholesale rates. See Note 9 to the Consolidated Financial Statements, "Asset Retirement Obligations," for additional information regarding nuclear decommissioning costs. See Note 15 to the Consolidated Financial Statements, "Investments in Debt and Equity Securities," for additional information regarding NDTF assets.

OTHER MATTERS

Environmental Regulations

The Duke Energy Registrants are subject to federal, state and local regulations regarding air and water quality, hazardous and solid waste disposal and other environmental matters. These regulations can be changed from time to time and result in new obligations of the Duke Energy Registrants.

The following sections outline various proposed and recently enacted legislation and regulations that may impact the Duke Energy Registrants. Refer to Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for further information regarding potential plant retirements and regulatory filings related to the Duke Energy Registrants.

Coal Combustion Residuals

In April 2015, EPA published a rule to regulate the disposal of CCR from electric utilities as solid waste. The federal regulation classifies CCR as nonhazardous waste and allows for beneficial use of CCR with some restrictions. The regulation applies to all new and existing landfills, new and existing surface impoundments receiving CCR and existing surface impoundments that are no longer receiving CCR but contain liquid located at stations currently generating electricity (regardless of fuel source). The rule establishes requirements regarding landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring, protection and remedial procedures and other operational and reporting procedures to ensure the safe disposal and management of CCR. Various industry and environmental parties have appealed EPA's CCR rule in the D.C. Circuit Court. On April 18, 2016, EPA filed a motion with the federal court to settle five issues raised in litigation. On June 14, 2016, the court approved the motion with respect to all of those issues. Duke Energy does not expect a material impact from the settlement or that it will result in additional ARO adjustments. On September 13, 2017, EPA responded to a petition by the Utility Solid Waste Activities Group that the agency would reconsider certain provisions of the final rule, and asked the D.C. Circuit Court to suspend the litigation. The D.C. Circuit Court denied EPA's petition to suspend the litigation and oral argument was held on November 20, 2017. On August 21, 2018, the D.C. Circuit issued its decision in the CCR rule litigation denying relief for industry petitioners' remaining claims and ruling in favor of environmental petitioners on a number of their challenges, including the regulation of inactive CCR surface impoundments at retired plants and the continued operation of unlined impoundments.

On March 15, 2018, EPA published proposed amendments to the federal CCR rule, including revisions that were required as part of a CCR litigation settlement, as well as changes that the agency considers warranted due to the passage of the Water Infrastructure Improvements for the Nation Act, which provides statutory authority for state and federal permit programs. On July 17, 2018, EPA issued a rule (Phase 1, Part 1) finalizing certain, but not all, elements included in the agency's March 15, 2018, proposal. The final rule revises certain closure deadlines and groundwater protection standards in the CCR rule. It does not change the primary requirements for groundwater monitoring, corrective action, inspections and maintenance, and closure, and thus does not materially affect Duke Energy's coal ash basin closure plans or compliance obligations under the CCR rule. On October 22, 2018, a coalition of environmental groups filed a petition for review in the D.C. Circuit Court challenging EPA's final Phase 1, Part 1 revisions to the CCR rule. Briefing in the case concluded in February 2019.

In addition to the requirements of the federal CCR regulation, CCR landfills and surface impoundments will continue to be independently regulated by most states. Cost recovery for future expenditures will be pursued through the normal ratemaking process with federal and state utility commissions and via wholesale contracts, which permit recovery of necessary and prudently incurred costs associated with Duke Energy's regulated operations. For more information, see Notes 4 and 9 to the Consolidated Financial Statements, "Regulatory Matters" and "Asset Retirement Obligations," respectively.

Coal Ash Management Act of 2014

AROs recorded on the Duke Energy Carolinas and Duke Energy Progress Consolidated Balance Sheets at December 31, 2018, and December 31, 2017, include the legal obligation for closure of coal ash basins and the disposal of related ash as a result of the Coal Ash Act, the EPA CCR rule and other agreements. The Coal Ash Act includes a variance procedure for compliance deadlines and other issues surrounding the management of CCR and CCR surface impoundments and prohibits cost recovery in customer rates for unlawful discharge of ash impoundment waters occurring after January 1, 2014. The Coal Ash Act leaves the decision on cost recovery determinations related to closure of ash impoundments to the normal ratemaking processes before utility regulatory commissions.

Consistent with the requirements of the Coal Ash Act, Duke Energy has submitted comprehensive site assessments and groundwater corrective plans to NCDEQ and will submit to NCDEQ site-specific coal ash impoundment closure plans in advance of closure. In support of these closure plans, on November 15, 2018, Duke Energy submitted options analyses, groundwater modeling and net environmental benefits analyses for six sites potentially eligible for closure by cap in place. Separately, on November 16, 2018, Duke Energy submitted a variance application requesting that NCDEQ grant a six-month extension to the closure deadline applicable to the CCR surface impoundments at the Sutton Plant. NCDEQ held a public meeting on January 14, 2019 at which it announced that an extension would be appropriate. A final decision on the variance application is expected by April 15, 2019.

The current plans for each site are listed in the table below.

NCDEQ Risk Classification	Plants/Current Closure Date	Expected Closure Method
Low	Allen – December 31, 2029[a] Belews Creek – December 31, 2029[a] Buck – December 31, 2029[a][b] Rogers – December 31, 2029[a] Marshall – December 31, 2029[a] Mayo – December 31, 2029[a] Roxboro – December 31, 2029[a]	Combination of a cap system and a groundwater monitoring system, or for selected sites, conversion for beneficial use.
Medium	H.F. Lee – December 31, 2029[b] Cape Fear – December 31, 2029[b] Weatherspoon – August 1, 2028	Excavation, which may include conversion of the basin to a lined industrial landfill, transferring coal ash to an engineered landfill, or for selected sites, conversion for beneficial use.
High	Sutton – August 1, 2019 Riverbend – August 1, 2019 Dan River – August 1, 2019 Asheville – August 1, 2022	Excavation, which may include a combination of transferring coal ash to an engineered landfill or for selected sites, conversion for beneficial use.

(a) In November 2018, the closure deadline for these basins was extended to December 31, 2029 as a result of the completion of certain dam improvement projects and alternative drinking water source projects by October 15, 2018.

(b) The Coal Ash Act requires the installation and operation of three large-scale coal ash beneficiation projects to produce reprocessed ash for use in the concrete industry. Duke Energy has selected the Buck, H.F. Lee and Cape Fear plants for these projects. Closure at these sites is required to be completed no later than December 31, 2029.

For further information on ash basins and recovery, see Notes 4 and 9 to the Consolidated Financial Statements, "Regulatory Matters" and “Asset Retirement Obligations,” respectively.

Estimated Cost and Impacts of Rulemakings

Duke Energy will incur capital expenditures to comply with the environmental regulations and rules discussed above. The following table, as of December 31, 2018, provides five-year estimated costs, excluding AFUDC, of new control equipment that may need to be installed on existing power plants primarily to comply with the Coal Ash Act requirements for conversion to dry disposal of bottom ash and fly ash, CWA 316(b) and ELGs through December 31, 2023. The table excludes ash basin closure costs recorded in Asset retirement obligations on the Consolidated Balance Sheets. For more information related to AROs, see Note 9 to the Consolidated Financial Statements.

(in millions)	Five-Year Estimated Costs
Duke Energy	**$ 420**
Duke Energy Carolinas	185
Progress Energy	200
Duke Energy Progress	80
Duke Energy Florida	120
Duke Energy Ohio	15
Duke Energy Indiana	20

The Duke Energy Registrants also expect to incur increased fuel, purchased power, operation and maintenance and other expenses, in addition to costs for replacement generation for potential coal-fired power plant retirements, as a result of these regulations. Actual compliance costs incurred may be materially different from these estimates due to reasons such as the timing and requirements of EPA regulations and the resolution of legal challenges to the rules. The Duke Energy Registrants intend to seek rate recovery of necessary and prudently incurred costs associated with regulated operations to comply with these regulations.

Other Environmental Regulations

The Duke Energy Registrants are also subject to various federal, state and local regulations regarding air and water quality, hazardous and solid waste disposal and other environmental matters, including the following:

- Clean Water Act
- Steam Effluent Limitation Guidelines
- Cross-State Air Pollution Rule
- Carbon Pollution Standards for New, Modified and Reconstructed Power Plants
- Clean Power Plan/ACE Rule

Duke Energy continues to comply with enacted environmental laws and regulations even as certain of these regulations are in various stages of clarification, revision or legal challenges. The Duke Energy Registrants cannot predict the outcome of these matters.

Section 126 Petitions

On November 16, 2016, the state of Maryland filed a petition with EPA under Section 126 of the Clean Air Act alleging that 19 power plants, including two plants (three units) that Duke Energy Registrants own and operate, contribute to violations of EPA's NAAQS for ozone in the state of Maryland. On March 12, 2018, the state of New York filed a petition with EPA, also under Section 126 of the Clean Air Act alleging that over 60 power plants, including four that Duke Energy Registrants own and operate, contribute to violations of EPA's ozone NAAQS in the state of New York. Both Maryland and New York seek EPA orders requiring the states in which the named power plants operate impose more stringent NO_x emission limitations on the plants. On October 5, 2018, EPA published a final rule denying the Maryland petition. That same day, Maryland appealed EPA's denial of their Section 126 petition to the D.C. Circuit Court. The impact of these petitions could be more stringent requirements for the operation of NO_x emission controls at these plants. The Duke Energy Registrants cannot predict the outcome of these matters.

Global Climate Change

The Duke Energy Registrants' GHG emissions consist primarily of CO_2 and result primarily from operating a fleet of coal-fired and natural gas-fired power plants. In 2018, the Duke Energy Registrants' power plants emitted approximately 105 million tons of CO_2. Future levels of CO_2 emissions will be influenced by variables that include fuel prices, compliance with new or existing regulations, economic conditions that affect electricity demand and the technologies deployed to generate the electricity necessary to meet the customer demand.

The Duke Energy Registrants have taken actions that have resulted in a reduction of CO_2 emissions over time. Actions have included the retirement of 47 coal-fired EGUs with a combined generating capacity of 5,425 MW. Much of that capacity has been replaced with state-of-the-art highly efficient natural gas-fired generation that produces far fewer CO_2 emissions per unit of electricity generated. Duke Energy also has made investments to expand its portfolio of wind and solar projects, increase energy efficiency offerings and invest in its zero-CO_2 emissions hydropower and nuclear plants. These efforts have diversified its system and significantly reduced CO_2 emissions. Between 2005 and 2018, the Duke Energy Registrants have collectively lowered the CO_2 emissions from their electricity generation by 31 percent, which potentially lowers the exposure to any future mandatory CO_2 emission reduction requirements or carbon tax, whether as a result of federal legislation, EPA regulation, state regulation or other as yet unknown emission reduction requirement. Duke Energy will continue to explore the use of currently available and commercially demonstrated technology to reduce CO_2 emissions, including energy efficiency, wind, solar, storage and nuclear. Duke Energy will adjust to evolving and innovative technologies in a way that balances the reliability and affordability that customers expect. Under any future scenario involving mandatory CO_2 limitations, the Duke Energy Registrants would plan to seek recovery of their compliance costs through appropriate regulatory mechanisms.

The Duke Energy Registrants recognize certain groups associate severe weather events with increasing levels of GHGs in the atmosphere and forecast the possibility these weather events could have a material impact on future results of operations should they occur more frequently and with greater severity. However, the uncertain nature of potential changes in extreme weather events (such as increased frequency, duration and severity), the long period of time over which any potential changes might take place and the inability to predict potential changes with any degree of accuracy, make estimating any potential future financial risk to the Duke Energy Registrants' operations impossible.

The Duke Energy Registrants annually, biannually or triennially prepare lengthy, forward-looking IRPs. These detailed, highly technical plans are based on the company's thorough analysis of numerous factors that can impact the cost of producing and delivering electricity that influence long-term resource planning decisions. The IRP process helps to evaluate a range of options, taking into account forecasts of future electricity demand, fuel prices, transmission improvements, new generating capacity, integration of renewables, energy storage, energy efficiency and demand response initiatives. The IRP process also helps evaluate potential environmental and regulatory scenarios to better mitigate policy and economic risks. The IRPs we file with regulators look out 10 to 20 years depending on the jurisdiction.

For a number of years, the Duke Energy Registrants have included a price on CO_2 emissions in their IRP planning process to account for the potential regulation of CO_2 emissions. Incorporating a price on CO_2 emissions in the IRPs allows for the evaluation of existing and future resource needs against potential climate change policy risk in the absence of policy certainty. One of the challenges with using a CO_2 price, especially in the absence of a clear and certain policy, is determining the appropriate price to use. To address this uncertainty and ensure the company remains agile, the Duke Energy Registrants typically use a range of potential CO_2 prices to reflect a range of potential policy outcomes.

The Duke Energy Registrants routinely take steps to reduce the potential impact of severe weather events on their electric distribution systems by modernizing the electric grid through smart meters, storm hardening, self-healing and targeted undergrounding and applying lessons learned from previous storms to restoration efforts. The Duke Energy Registrants' electric generating facilities are designed to withstand extreme weather events without significant damage. The Duke Energy Registrants maintain an inventory of coal and oil on-site to mitigate the effects of any potential short-term disruption in fuel supply so they can continue to provide customers with an uninterrupted supply of electricity.

State Legislation

In July 2017, the North Carolina General Assembly passed House Bill 589, and it was subsequently enacted into law by the governor. The law includes, among other things, overall reform of the application of PURPA for new solar projects in the state, a requirement for the utility to procure approximately 2,600 MW of renewable energy through a competitive bidding process and recovery of costs related to the competitive bidding process through the fuel clause and a competitive procurement rider. The law stipulated certain deadlines for Duke Energy to file for NCUC approval of programs required under the law. Duke Energy has made some regulatory filings since the passage of the law and will continue to implement the requirements of House Bill 589.

In July 2018, Duke Energy issued an RFP for the first tranche of 680 MW. In accordance with the provisions of HB 589, total procurement will be changed based upon how much generation with no economic dispatch or curtailment occurs over the procurement period. Most of this type of generation is solar procured under PURPA. Based upon the current forecasted amount of such generation that will occur over procurement period, Duke Energy estimates the total under HB 589 competitive procurement will be approximately 1,500 to 2,000 MW.

In various states, legislation is being considered to allow third-party sales of electricity. Deregulation or restructuring in the electric industry may result in increased competition and unrecovered costs. The Duke Energy Registrants cannot predict the outcome of these initiatives.

Liquefied Natural Gas Facility

Piedmont Natural Gas plans to build a liquefied natural gas facility in Robeson County, North Carolina. The project is expected to be completed in the summer of 2021 at a cost of $250 million. Construction will begin in the summer of 2019.

New Accounting Standards

See Note 1 to the Consolidated Financial Statements, “Summary of Significant Accounting Policies,” for a discussion of the impact of new accounting standards.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See “Management’s Discussion and Analysis of Results of Operations and Financial Condition – Quantitative and Qualitative Disclosures About Market Risk.”

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Combined Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Duke Energy Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Corporation and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 1947.

DUKE ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions, except per share amounts)	Years Ended December 31, 2018	2017	2016
Operating Revenues			
Regulated electric	**$ 22,097**	$ 21,177	$ 21,221
Regulated natural gas	**1,773**	1,734	863
Nonregulated electric and other	**651**	654	659
Total operating revenues	**24,521**	23,565	22,743
Operating Expenses			
Fuel used in electric generation and purchased power	**6,831**	6,350	6,625
Cost of natural gas	**697**	632	265
Operation, maintenance and other	**6,463**	5,944	6,224
Depreciation and amortization	**4,074**	3,527	3,294
Property and other taxes	**1,280**	1,233	1,142
Impairment charges	**402**	282	18
Total operating expenses	**19,747**	17,968	17,568
(Losses) Gains on Sales of Other Assets and Other, net	**(89)**	28	27
Operating Income	**4,685**	5,625	5,202
Other Income and Expenses			
Equity in earnings (losses) of unconsolidated affiliates	**83**	119	(15)
Other income and expenses, net	**399**	508	463
Total other income and expenses	**482**	627	448
Interest Expense	**2,094**	1,986	1,916
Income From Continuing Operations Before Income Taxes	**3,073**	4,266	3,734
Income Tax Expense From Continuing Operations	**448**	1,196	1,156
Income From Continuing Operations	**2,625**	3,070	2,578
Income (Loss) From Discontinued Operations, net of tax	**19**	(6)	(408)
Net Income	**2,644**	3,064	2,170
Less: Net (Loss) Income Attributable to Noncontrolling Interests	**(22)**	5	18
Net Income Attributable to Duke Energy Corporation	**$ 2,666**	$ 3,059	$ 2,152
Earnings Per Share – Basic and Diluted			
Income from continuing operations attributable to Duke Energy Corporation common stockholders			
Basic	**$ 3.73**	$ 4.37	$ 3.71
Diluted	**$ 3.73**	$ 4.37	$ 3.71
Income (Loss) from discontinued operations attributable to Duke Energy Corporation common stockholders			
Basic	**$ 0.03**	$ (0.01)	$ (0.60)
Diluted	**$ 0.03**	$ (0.01)	$ (0.60)
Net income attributable to Duke Energy Corporation common stockholders			
Basic	**$ 3.76**	$ 4.36	$ 3.11
Diluted	**$ 3.76**	$ 4.36	$ 3.11
Weighted average shares outstanding			
Basic	**708**	700	691
Diluted	**708**	700	691

See Notes to Consolidated Financial Statements

DUKE ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	2017	2016
Net Income	**$ 2,644**	$ 3,064	$ 2,170
Other Comprehensive (Loss) Income, net of tax			
Foreign currency translation adjustments	**—**	—	694
Pension and OPEB adjustments	**(6)**	3	(11)
Net unrealized (losses) gains on cash flow hedges	**(10)**	2	17
Reclassification into earnings from cash flow hedges	**6**	8	13
Unrealized (losses) gains on available-for-sale securities	**(3)**	13	2
Other Comprehensive (Loss) Income, net of tax	**(13)**	26	715
Comprehensive Income	**2,631**	3,090	2,885
Less: Comprehensive (Loss) Income Attributable to Noncontrolling Interests	**(22)**	5	20
Comprehensive Income Attributable to Duke Energy Corporation	**$ 2,653**	$ 3,085	$ 2,865

See Notes to Consolidated Financial Statements

DUKE ENERGY CORPORATION
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 442**	$ 358
Receivables (net of allowance for doubtful accounts of $16 at 2018 and $14 at 2017)	**962**	779
Receivables of VIEs (net of allowance for doubtful accounts of $55 at 2018 and $54 at 2017)	**2,172**	1,995
Inventory	**3,084**	3,250
Regulatory assets (includes $52 at 2018 and $51 at 2017 related to VIEs)	**2,005**	1,437
Other (includes $162 at 2018 and $214 at 2017 related to VIEs)	**1,049**	634
Total current assets	**9,714**	8,453
Property, Plant and Equipment		
Cost	**134,458**	127,507
Accumulated depreciation and amortization	**(43,126)**	(41,537)
Generation facilities to be retired, net	**362**	421
Net property, plant and equipment	**91,694**	86,391
Other Noncurrent Assets		
Goodwill	**19,303**	19,396
Regulatory assets (includes $1,041 at 2018 and $1,091 at 2017 related to VIEs)	**13,617**	12,442
Nuclear decommissioning trust funds	**6,720**	7,097
Investments in equity method unconsolidated affiliates	**1,409**	1,175
Other	**2,935**	2,960
Total other noncurrent assets	**43,984**	43,070
Total Assets	**$ 145,392**	$ 137,914
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 3,487**	$ 3,043
Notes payable and commercial paper	**3,410**	2,163
Taxes accrued	**577**	551
Interest accrued	**559**	525
Current maturities of long-term debt (includes $227 at 2018 and $225 at 2017 related to VIEs)	**3,406**	3,244
Asset retirement obligations	**919**	689
Regulatory liabilities	**598**	402
Other	**2,085**	1,865
Total current liabilities	**15,041**	12,482
Long-Term Debt (includes $3,998 at 2018 and $4,306 at 2017 related to VIEs)	**51,123**	49,035
Other Noncurrent Liabilities		
Deferred income taxes	**7,806**	6,621
Asset retirement obligations	**9,548**	9,486
Regulatory liabilities	**14,834**	15,330
Accrued pension and other post-retirement benefit costs	**988**	1,103
Investment tax credits	**568**	539
Other (includes $212 at 2018 and $241 at 2017 related to VIEs)	**1,650**	1,581
Total other noncurrent liabilities	**35,394**	34,660
Commitments and Contingencies		
Equity		
Common stock, $0.001 par value, 2 billion shares authorized; 727 million shares outstanding at 2018 and 700 million shares outstanding at 2017	**1**	1
Additional paid-in capital	**40,795**	38,792
Retained earnings	**3,113**	3,013
Accumulated other comprehensive loss	**(92)**	(67)
Total Duke Energy Corporation stockholders' equity	**43,817**	41,739
Noncontrolling interests	**17**	(2)
Total equity	**43,834**	41,737
Total Liabilities and Equity	**$ 145,392**	$ 137,914

See Notes to Consolidated Financial Statements

DUKE ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 2,644**	$ 3,064	$ 2,170
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and accretion (including amortization of nuclear fuel)	**4,696**	4,046	3,880
Equity component of AFUDC	**(221)**	(237)	(200)
Losses (Gains) on sales of other assets	**88**	(33)	477
Impairment charges	**402**	282	212
Deferred income taxes	**1,079**	1,433	900
Equity in (earnings) losses of unconsolidated affiliates	**(83)**	(119)	15
Accrued pension and other post-retirement benefit costs	**61**	8	21
Contributions to qualified pension plans	**(141)**	(19)	(155)
Payments for asset retirement obligations	**(533)**	(571)	(608)
Payment for the disposal of other assets	**(105)**	—	—
Other rate case adjustments	**37**	—	—
Provision for rate refunds	**425**	—	—
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**22**	18	34
Receivables	**(345)**	(83)	(372)
Inventory	**156**	268	272
Other current assets	**(721)**	(400)	(174)
Increase (decrease) in			
Accounts payable	**479**	(204)	296
Taxes accrued	**23**	149	236
Other current liabilities	**270**	(482)	182
Other assets	**(1,008)**	(436)	(186)
Other liabilities	**(39)**	(60)	(137)
Net cash provided by operating activities	**7,186**	6,624	6,863
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(9,389)**	(8,052)	(7,901)
Contributions to equity method investments	**(416)**	(414)	(307)
Acquisitions, net of cash acquired	**—**	(13)	(4,778)
Return of investment capital	**137**	281	1
Purchases of debt and equity securities	**(3,762)**	(4,071)	(5,153)
Proceeds from sales and maturities of debt and equity securities	**3,747**	4,098	5,236
Proceeds from the sales of discontinued operations and other assets, net of cash divested	**41**	—	1,418
Other	**(418)**	(271)	(44)
Net cash used in investing activities	**(10,060)**	(8,442)	(11,528)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the:			
Issuance of long-term debt	**5,299**	6,909	9,238
Issuance of common stock	**1,838**	—	731
Payments for the redemption of long-term debt	**(2,906)**	(2,316)	(1,923)
Proceeds from the issuance of short-term debt with original maturities greater than 90 days	**472**	319	2,081
Payments for the redemption of short-term debt with original maturities greater than 90 days	**(282)**	(272)	(2,166)
Notes payable and commercial paper	**981**	(409)	(1,362)
Dividends paid	**(2,471)**	(2,450)	(2,332)
Other	**29**	1	(16)
Net cash provided by financing activities	**2,960**	1,782	4,251
Changes in cash and cash equivalents included in assets held for sale	**—**	—	474
Net increase (decrease) in cash, cash equivalents, and restricted cash	**86**	(36)	60
Cash, cash equivalents, and restricted cash at beginning of period	**505**	541	481
Cash, cash equivalents, and restricted cash at end of period	**$ 591**	$ 505	$ 541
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 2,086**	$ 1,963	$ 1,794
Cash (received from) paid for income taxes	**(266)**	4	229
Significant non-cash transactions:			
Accrued capital expenditures	**1,112**	1,032	1,000
Non-cash dividends	**107**	—	—

See Notes to Consolidated Financial Statements

DUKE ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Common Stock Shares	Common Stock	Additional Paid-in Capital	Retained Earnings	Duke Energy Corporation Stockholders' Accumulated Other Comprehensive Loss: Foreign Currency Translation Adjustments	Net Losses on Cash Flow Hedges	Net Unrealized Gains (Losses) on Available-for-Sale Securities	Pension and OPEB Adjustments	Total Duke Energy Corporation Stockholders' Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2015	688	$ 1	$ 37,968	$ 2,564	$ (692)	$ (50)	$ (3)	$ (61)	$ 39,727	$ 44	$ 39,771
Net income	—	—	—	2,152	—	—	—	—	2,152	18	2,170
Other comprehensive income (loss)[a]	—	—	—	—	692	30	2	(11)	713	2	715
Common stock issuances, including dividend reinvestment and employee benefits	12	—	773	—	—	—	—	—	773	—	773
Common stock dividends	—	—	—	(2,332)	—	—	—	—	(2,332)	—	(2,332)
Distributions to noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	—	—	(6)	(6)
Other[b]	—	—	—	—	—	—	—	—	—	(50)	(50)
Balance at December 31, 2016	700	$ 1	$ 38,741	$ 2,384	$ —	$ (20)	$ (1)	$ (72)	$ 41,033	$ 8	$ 41,041
Net income	—	—	—	3,059	—	—	—	—	3,059	5	3,064
Other comprehensive income	—	—	—	—	—	10	13	3	26	—	26
Common stock issuances, including dividend reinvestment and employee benefits	—	—	51	—	—	—	—	—	51	—	51
Common stock dividends	—	—	—	(2,450)	—	—	—	—	(2,450)	—	(2,450)
Distributions to noncontrolling interest in subsidiaries	—	—	—	—	—	—	—	—	—	(2)	(2)
Other[c]	—	—	—	20	—	—	—	—	20	(13)	7
Balance at December 31, 2017	700	$ 1	$ 38,792	$ 3,013	$ —	$ (10)	$ 12	$ (69)	$ 41,739	$ (2)	$ 41,737
Net income	**—**	**—**	**—**	**2,666**	**—**	**—**	**—**	**—**	**2,666**	**(22)**	**2,644**
Other comprehensive (loss) income	**—**	**—**	**—**	**—**	**—**	**(4)**	**(3)**	**(6)**	**(13)**	**—**	**(13)**
Common stock issuances, including dividend reinvestment and employee benefits	**27**	**—**	**2,003**	**—**	**—**	**—**	**—**	**—**	**2,003**	**—**	**2,003**
Common stock dividends	**—**	**—**	**—**	**(2,578)**	**—**	**—**	**—**	**—**	**(2,578)**	**—**	**(2,578)**
Distributions to noncontrolling interests in subsidiaries	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(1)**	**(1)**
Other[d]	**—**	**—**	**—**	**12**	**—**	**—**	**(12)**	**—**	**—**	**42**	**42**
Balance at December 31, 2018	**727**	**$ 1**	**$ 40,795**	**$ 3,113**	**$ —**	**$ (14)**	**$ (3)**	**$ (75)**	**$ 43,817**	**$ 17**	**$ 43,834**

(a) Foreign Currency Translation Adjustments amount includes $620 million of cumulative adjustment realized as a result of the sale of the Latin American generation business. See Note 2 to the Consolidated Financial Statements.

(b) Noncontrolling Interests amount is primarily related to the sale of the Latin American generation business. See Note 2 to the Consolidated Financial Statements.

(c) Retained Earnings relates to a cumulative-effect adjustment due to implementation of a new accounting standard related to stock-based compensation and the associated income taxes. See Note 1 to the Consolidated Financial Statements for additional information. Noncontrolling Interests relates to the purchase of remaining interest in REC Solar.

(d) Amounts in Retained Earnings and Accumulated Other Comprehensive Loss represent a cumulative-effect adjustment due to implementation of a new accounting standard related to Financial Instruments Classification and Measurement. See Note 1 for more information. Amount in Noncontrolling Interests primarily relates to tax equity financing activity in the Commercial Renewables segment.

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Duke Energy Carolinas, LLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Carolinas, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 1947.

DUKE ENERGY CAROLINAS, LLC
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Operating Revenues	**$ 7,300**	$ 7,302	$ 7,322
Operating Expenses			
Fuel used in electric generation and purchased power	**1,821**	1,822	1,797
Operation, maintenance and other	**2,130**	2,021	2,158
Depreciation and amortization	**1,201**	1,090	1,075
Property and other taxes	**295**	281	276
Impairment charges	**192**	—	1
Total operating expenses	**5,639**	5,214	5,307
(Losses) Gains on Sales of Other Assets and Other, net	**(1)**	1	(5)
Operating Income	**1,660**	2,089	2,010
Other Income and Expenses, net	**153**	199	214
Interest Expense	**439**	422	424
Income Before Income Taxes	**1,374**	1,866	1,800
Income Tax Expense	**303**	652	634
Net Income	**$ 1,071**	$ 1,214	$ 1,166
Other Comprehensive Income, net of tax			
Reclassification into earnings from cash flow hedges	**1**	2	2
Other Comprehensive Income, net of tax	**1**	2	2
Comprehensive Income	**$ 1,072**	$ 1,216	$ 1,168

See Notes to Consolidated Financial Statements

DUKE ENERGY CAROLINAS, LLC
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 33**	$ 16
Receivables (net of allowance for doubtful accounts of $2 at 2018 and 2017)	**219**	200
Receivables of VIEs (net of allowance for doubtful accounts of $7 at 2018 and 2017)	**699**	640
Receivables from affiliated companies	**182**	95
Inventory	**948**	971
Regulatory assets	**520**	299
Other	**72**	19
Total current assets	**2,673**	2,240
Property, Plant and Equipment		
Cost	**44,741**	42,939
Accumulated depreciation and amortization	**(15,496)**	(15,063)
Net property, plant and equipment	**29,245**	27,876
Other Noncurrent Assets		
Regulatory assets	**3,457**	2,853
Nuclear decommissioning trust funds	**3,558**	3,772
Other	**1,027**	979
Total other noncurrent assets	**8,042**	7,604
Total Assets	**$ 39,960**	$ 37,720
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 988**	$ 842
Accounts payable to affiliated companies	**230**	209
Notes payable to affiliated companies	**439**	104
Taxes accrued	**171**	234
Interest accrued	**102**	108
Current maturities of long-term debt	**6**	1,205
Asset retirement obligations	**290**	337
Regulatory liabilities	**199**	126
Other	**571**	486
Total current liabilities	**2,996**	3,651
Long-Term Debt	**10,633**	8,598
Long-Term Debt Payable to Affiliated Companies	**300**	300
Other Noncurrent Liabilities		
Deferred income taxes	**3,689**	3,413
Asset retirement obligations	**3,659**	3,273
Regulatory liabilities	**5,999**	6,231
Accrued pension and other post-retirement benefit costs	**99**	95
Investment tax credits	**231**	232
Other	**671**	566
Total other noncurrent liabilities	**14,348**	13,810
Commitments and Contingencies		
Equity		
Member's equity	**11,689**	11,368
Accumulated other comprehensive loss	**(6)**	(7)
Total equity	**11,683**	11,361
Total Liabilities and Equity	**$ 39,960**	$ 37,720

See Notes to Consolidated Financial Statements

DUKE ENERGY CAROLINAS, LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 1,071**	$ 1,214	$ 1,166
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization (including amortization of nuclear fuel)	**1,487**	1,409	1,382
Equity component of AFUDC	**(73)**	(106)	(102)
Losses (Gains) on sales of other assets	**1**	(1)	5
Impairment charges	**192**	—	1
Deferred income taxes	**305**	410	470
Accrued pension and other post-retirement benefit costs	**4**	(4)	4
Contributions to qualified pension plans	**(46)**	—	(43)
Payments for asset retirement obligations	**(230)**	(271)	(287)
Provision for rate refunds	**182**	—	—
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**2**	9	5
Receivables	**(86)**	(9)	(76)
Receivables from affiliated companies	**(87)**	68	(56)
Inventory	**25**	78	215
Other current assets	**(161)**	7	67
Increase (decrease) in			
Accounts payable	**168**	23	(69)
Accounts payable to affiliated companies	**21**	(38)	18
Taxes accrued	**(65)**	86	187
Other current liabilities	**89**	(161)	63
Other assets	**(179)**	(49)	20
Other liabilities	**(90)**	(31)	6
Net cash provided by operating activities	**2,530**	2,634	2,976
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(2,706)**	(2,524)	(2,220)
Purchases of debt and equity securities	**(1,810)**	(2,124)	(2,832)
Proceeds from sales and maturities of debt and equity securities	**1,810**	2,128	2,832
Notes receivable from affiliated companies	**—**	66	97
Other	**(147)**	(109)	(83)
Net cash used in investing activities	**(2,853)**	(2,563)	(2,206)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**1,983**	569	1,587
Payments for the redemption of long-term debt	**(1,205)**	(116)	(356)
Notes payable to affiliated companies	**335**	104	—
Distributions to parent	**(750)**	(625)	(2,000)
Other	**(23)**	(1)	—
Net cash provided by (used in) financing activities	**340**	(69)	(769)
Net increase in cash and cash equivalents	**17**	2	1
Cash and cash equivalents at beginning of period	**16**	14	13
Cash and cash equivalents at end of period	**$ 33**	$ 16	$ 14
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 452**	$ 398	$ 393
Cash paid for (received from) income taxes	**89**	193	(60)
Significant non-cash transactions:			
Accrued capital expenditures	**302**	315	347

See Notes to Consolidated Financial Statements

DUKE ENERGY CAROLINAS, LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Member's Equity	Accumulated Other Comprehensive Loss: Net Losses on Cash Flow Hedges	Total Equity
Balance at December 31, 2015	$ 11,617	$ (11)	$ 11,606
Net income	1,166	—	1,166
Other comprehensive income	—	2	2
Distributions to parent	(2,000)	—	(2,000)
Other	(2)	—	(2)
Balance at December 31, 2016	$ 10,781	$ (9)	$ 10,772
Net income	1,214	—	1,214
Other comprehensive income	—	2	2
Distributions to parent	(625)	—	(625)
Other	(2)	—	(2)
Balance at December 31, 2017	$ 11,368	$ (7)	$ 11,361
Net income	**1,071**	**—**	**1,071**
Other comprehensive income	**—**	**1**	**1**
Distributions to parent	**(750)**	**—**	**(750)**
Balance at December 31, 2018	**$ 11,689**	**$ (6)**	**$ 11,683**

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Progress Energy, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Progress Energy, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 1930.

PROGRESS ENERGY, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

(in millions)	Years Ended December 31, 2018	2017	2016
Operating Revenues	**$ 10,728**	$ 9,783	$ 9,853
Operating Expenses			
Fuel used in electric generation and purchased power	**3,976**	3,417	3,644
Operation, maintenance and other	**2,613**	2,301	2,458
Depreciation and amortization	**1,619**	1,285	1,213
Property and other taxes	**529**	503	487
Impairment charges	**87**	156	7
Total operating expenses	**8,824**	7,662	7,809
Gains on Sales of Other Assets and Other, net	**24**	26	25
Operating Income	**1,928**	2,147	2,069
Other Income and Expenses, net	**165**	209	186
Interest Expense	**842**	824	689
Income From Continuing Operations Before Income Taxes	**1,251**	1,532	1,566
Income Tax Expense From Continuing Operations	**218**	264	527
Income From Continuing Operations	**1,033**	1,268	1,039
Income From Discontinued Operations, net of tax	**—**	—	2
Net Income	**1,033**	1,268	1,041
Less: Net Income Attributable to Noncontrolling Interests	**6**	10	10
Net Income Attributable to Parent	**$ 1,027**	$ 1,258	$ 1,031

Net Income	**$ 1,033**	$ 1,268	$ 1,041
Other Comprehensive Income, net of tax			
Pension and OPEB adjustments	**5**	4	1
Net unrealized gain on cash flow hedges	**6**	5	—
Reclassification into earnings from cash flow hedges	**—**	—	8
Unrealized (losses) gains on available-for-sale securities	**(1)**	4	1
Other Comprehensive Income, net of tax	**10**	13	10
Comprehensive Income	**1,043**	1,281	1,051
Less: Comprehensive Income Attributable to Noncontrolling Interests	**6**	10	10
Comprehensive Income Attributable to Parent	**$ 1,037**	$ 1,271	$ 1,041

See Notes to Consolidated Financial Statements

PROGRESS ENERGY, INC.
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 67**	$ 40
Receivables (net of allowance for doubtful accounts of $5 at 2018 and $4 at 2017)	**220**	123
Receivables of VIEs (net of allowance for doubtful accounts of $8 at 2018 and $7 at 2017)	**909**	780
Receivables from affiliated companies	**168**	31
Notes receivable from affiliated companies	**—**	240
Inventory	**1,459**	1,592
Regulatory assets (includes $52 at 2018 and $51 at 2017 related to VIEs)	**1,137**	741
Other (includes $39 at 2018 and $44 at 2017 related to VIEs)	**125**	334
Total current assets	**4,085**	3,881
Property, Plant and Equipment		
Cost	**50,260**	47,323
Accumulated depreciation and amortization	**(16,398)**	(15,857)
Generation facilities to be retired, net	**362**	421
Net property, plant and equipment	**34,224**	31,887
Other Noncurrent Assets		
Goodwill	**3,655**	3,655
Regulatory assets (includes $1,041 at 2018 and $1,091 at 2017 related to VIEs)	**6,564**	6,010
Nuclear decommissioning trust funds	**3,162**	3,324
Other	**974**	931
Total other noncurrent assets	**14,355**	13,920
Total Assets	**$ 52,664**	$ 49,688
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 1,172**	$ 1,006
Accounts payable to affiliated companies	**360**	251
Notes payable to affiliated companies	**1,235**	805
Taxes accrued	**109**	101
Interest accrued	**246**	212
Current maturities of long-term debt (includes $53 at 2018 and 2017 related to VIEs)	**1,672**	771
Asset retirement obligations	**514**	295
Regulatory liabilities	**280**	213
Other	**821**	729
Total current liabilities	**6,409**	4,383
Long-Term Debt (includes $1,636 at 2018 and $1,689 at 2017 related to VIEs)	**17,089**	16,916
Long-Term Debt Payable to Affiliated Companies	**150**	150
Other Noncurrent Liabilities		
Deferred income taxes	**3,941**	3,502
Asset retirement obligations	**4,897**	5,119
Regulatory liabilities	**5,049**	5,306
Accrued pension and other post-retirement benefit costs	**521**	545
Other	**351**	302
Total other noncurrent liabilities	**14,759**	14,774
Commitments and Contingencies		
Equity		
Common stock, $0.01 par value, 100 shares authorized and outstanding at 2018 and 2017	**—**	—
Additional paid-in capital	**9,143**	9,143
Retained earnings	**5,131**	4,350
Accumulated other comprehensive loss	**(20)**	(25)
Total Progress Energy, Inc. stockholder's equity	**14,254**	13,468
Noncontrolling interests	**3**	(3)
Total equity	**14,257**	13,465
Total Liabilities and Equity	**$ 52,664**	$ 49,688

See Notes to Consolidated Financial Statements

PROGRESS ENERGY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 1,033**	$ 1,268	$ 1,041
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and accretion (including amortization of nuclear fuel)	**1,987**	1,516	1,435
Equity component of AFUDC	**(104)**	(92)	(76)
Gains on sales of other assets	**(24)**	(28)	(34)
Impairment charges	**87**	156	7
Deferred income taxes	**358**	703	532
Accrued pension and other post-retirement benefit costs	**24**	(28)	(24)
Contributions to qualified pension plans	**(45)**	—	(43)
Payments for asset retirement obligations	**(230)**	(248)	(270)
Other rate case adjustments	**37**	—	—
Provision for rate refunds	**122**	—	—
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**18**	—	42
Receivables	**(207)**	(89)	7
Receivables from affiliated companies	**(137)**	71	211
Inventory	**121**	125	35
Other current assets	**(12)**	(397)	50
Increase (decrease) in			
Accounts payable	**217**	(260)	252
Accounts payable to affiliated companies	**109**	(97)	37
Taxes accrued	**8**	17	15
Other current liabilities	**129**	(166)	(42)
Other assets	**(913)**	(300)	(248)
Other liabilities	**(34)**	(98)	(36)
Net cash provided by operating activities	**2,544**	2,053	2,891
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(3,854)**	(3,152)	(3,306)
Asset Acquisitions	**—**	—	(10)
Purchases of debt and equity securities	**(1,753)**	(1,806)	(2,143)
Proceeds from sales and maturities of debt and equity securities	**1,769**	1,824	2,187
Net proceeds from sales of other assets	**20**	—	—
Proceeds from insurance	**—**	7	58
Proceeds from the sale of nuclear fuel	**—**	20	20
Notes receivable from affiliated companies	**240**	(160)	(80)
Other	**(182)**	(86)	47
Net cash used in investing activities	**(3,760)**	(3,353)	(3,227)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**1,833**	2,118	2,375
Payments for the redemption of long-term debt	**(771)**	(813)	(327)
Notes payable to affiliated companies	**430**	100	444
Dividends to parent	**(250)**	(124)	(2,098)
Other	**(1)**	(4)	(3)
Net cash provided by financing activities	**1,241**	1,277	391
Net increase (decrease) in cash, cash equivalents, and restricted cash	**25**	(23)	55
Cash, cash equivalents, and restricted cash at beginning of period	**87**	110	55
Cash, cash equivalents, and restricted cash at end of period	**$ 112**	$ 87	$ 110
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 798**	$ 773	$ 673
Cash received from income taxes	**(348)**	(146)	(187)
Significant non-cash transactions:			
Accrued capital expenditures	**478**	391	317
Equitization of certain notes payable to affiliates	**—**	1,047	—
Dividend to parent related to a legal entity restructuring	**—**	547	—

See Notes to Consolidated Financial Statements

PROGRESS ENERGY, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss: Net Losses on Cash Flow Hedges	Accumulated Other Comprehensive Loss: Net Unrealized Gains (Losses) on Available-for-Sale Securities	Accumulated Other Comprehensive Loss: Pension and OPEB Adjustments	Total Progress Energy, Inc. Stockholder's Equity	Noncontrolling Interests	Total Equity
Balance at December 31, 2015	$ 8,092	$ 4,831	$ (31)	$ —	$ (17)	$ 12,875	$ (22)	$ 12,853
Net income	—	1,031	—	—	—	1,031	10	1,041
Other comprehensive income	—	—	8	1	1	10	—	10
Distributions to noncontrolling interests	—	—	—	—	—	—	(1)	(1)
Dividends to parent	—	(2,098)	—	—	—	(2,098)	—	(2,098)
Other	2	—	—	—	—	2	—	2
Balance at December 31, 2016	$ 8,094	$ 3,764	$ (23)	$ 1	$ (16)	$ 11,820	$ (13)	$ 11,807
Net income	—	1,258	—	—	—	1,258	10	1,268
Other comprehensive income	—	—	5	4	4	13	—	13
Dividends to parent[(a)]	—	(672)	—	—	—	(672)	—	(672)
Equitization of certain notes payable to affiliates	1,047	—	—	—	—	1,047	—	1,047
Other	2	—	—	—	—	2	—	2
Balance at December 31, 2017	$ 9,143	$ 4,350	$ (18)	$ 5	$ (12)	$ 13,468	$ (3)	$ 13,465
Net income	**—**	**1,027**	**—**	**—**	**—**	**1,027**	**6**	**1,033**
Other comprehensive income (loss)	**—**	**—**	**6**	**(1)**	**5**	**10**	**—**	**10**
Distributions to noncontrolling interests	**—**	**—**	**—**	**—**	**—**	**—**	**(1)**	**(1)**
Dividends to parent	**—**	**(250)**	**—**	**—**	**—**	**(250)**	**—**	**(250)**
Other[(b)]	**—**	**4**	**—**	**(5)**	**—**	**(1)**	**1**	**—**
Balance at December 31, 2018	**$ 9,143**	**$ 5,131**	**$ (12)**	**$ (1)**	**$ (7)**	**$ 14,254**	**$ 3**	**$ 14,257**

(a) Includes a $547 million non-cash dividend related to a legal entity restructuring.
(b) Amounts in Retained Earnings and Accumulated Other Comprehensive Loss represent a cumulative-effect adjustment due to implementation of a new accounting standard related to Financial Instruments Classification and Measurement. See Note 1 for more information.

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Duke Energy Progress, LLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Progress, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 1930.

DUKE ENERGY PROGRESS, LLC
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Operating Revenues	**$ 5,699**	$ 5,129	$ 5,277
Operating Expenses			
Fuel used in electric generation and purchased power	**1,892**	1,609	1,830
Operation, maintenance and other	**1,578**	1,439	1,565
Depreciation and amortization	**991**	725	703
Property and other taxes	**155**	156	156
Impairment charges	**33**	19	1
Total operating expenses	**4,649**	3,948	4,255
Gains on Sales of Other Assets and Other, net	**9**	4	3
Operating Income	**1,059**	1,185	1,025
Other Income and Expenses, net	**87**	115	132
Interest Expense	**319**	293	257
Income Before Income Taxes	**827**	1,007	900
Income Tax Expense	**160**	292	301
Net Income and Comprehensive Income	**$ 667**	$ 715	$ 599

See Notes to Consolidated Financial Statements

DUKE ENERGY PROGRESS, LLC
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 23**	$ 20
Receivables (net of allowance for doubtful accounts of $2 at 2018 and $1 at 2017)	**75**	56
Receivables of VIEs (net of allowance for doubtful accounts of $5 at 2018 and 2017)	**547**	459
Receivables from affiliated companies	**23**	3
Inventory	**954**	1,017
Regulatory assets	**703**	352
Other	**62**	97
Total current assets	**2,387**	2,004
Property, Plant and Equipment		
Cost	**31,459**	29,583
Accumulated depreciation and amortization	**(11,423)**	(10,903)
Generation facilities to be retired, net	**362**	421
Net property, plant and equipment	**20,398**	19,101
Other Noncurrent Assets		
Regulatory assets	**4,111**	3,507
Nuclear decommissioning trust funds	**2,503**	2,588
Other	**612**	599
Total other noncurrent assets	**7,226**	6,694
Total Assets	**$ 30,011**	$ 27,799
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 660**	$ 402
Accounts payable to affiliated companies	**278**	179
Notes payable to affiliated companies	**294**	240
Taxes accrued	**53**	64
Interest accrued	**116**	102
Current maturities of long-term debt	**603**	3
Asset retirement obligations	**509**	295
Regulatory liabilities	**178**	139
Other	**408**	376
Total current liabilities	**3,099**	1,800
Long-Term Debt	**7,451**	7,204
Long-Term Debt Payable to Affiliated Companies	**150**	150
Other Noncurrent Liabilities		
Deferred income taxes	**2,119**	1,883
Asset retirement obligations	**4,311**	4,378
Regulatory liabilities	**3,955**	3,999
Accrued pension and other post-retirement benefit costs	**237**	248
Investment tax credits	**142**	143
Other	**106**	45
Total other noncurrent liabilities	**10,870**	10,696
Commitments and Contingencies		
Equity		
Member's Equity	**8,441**	7,949
Total Liabilities and Equity	**$ 30,011**	$ 27,799

See Notes to Consolidated Financial Statements

DUKE ENERGY PROGRESS, LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 667**	$ 715	$ 599
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization (including amortization of nuclear fuel)	**1,183**	936	907
Equity component of AFUDC	**(57)**	(47)	(50)
Gains on sales of other assets	**(9)**	(5)	(6)
Impairment charges	**33**	19	1
Deferred income taxes	**236**	384	384
Accrued pension and other post-retirement benefit costs	**15**	(20)	(32)
Contributions to qualified pension plans	**(25)**	—	(24)
Payments for asset retirement obligations	**(195)**	(192)	(212)
Other rate case adjustments	**37**	—	—
Provisions for rate refunds	**122**	—	—
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**5**	(4)	4
Receivables	**(107)**	(58)	(17)
Receivables from affiliated companies	**(20)**	2	11
Inventory	**63**	59	12
Other current assets	**(201)**	(75)	84
Increase (decrease) in			
Accounts payable	**219**	(230)	181
Accounts payable to affiliated companies	**99**	(48)	37
Taxes accrued	**(11)**	(39)	90
Other current liabilities	**46**	(131)	114
Other assets	**(484)**	(53)	(163)
Other liabilities	**12**	(18)	12
Net cash provided by operating activities	**1,628**	1,195	1,932
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(2,220)**	(1,715)	(1,733)
Purchases of debt and equity securities	**(1,236)**	(1,249)	(1,658)
Proceeds from sales and maturities of debt and equity securities	**1,206**	1,207	1,615
Net proceeds from the sales of other assets	**20**	—	—
Proceeds from insurance	**—**	4	—
Notes receivable from affiliated companies	**—**	165	(165)
Other	**(115)**	(55)	26
Net cash used in investing activities	**(2,345)**	(1,643)	(1,915)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**845**	812	505
Payments for the redemption of long-term debt	**(3)**	(470)	(15)
Notes payable to affiliated companies	**54**	240	(209)
Distributions to parent	**(175)**	(124)	(300)
Other	**(1)**	(1)	(2)
Net cash provided by (used in) financing activities	**720**	457	(21)
Net increase (decrease) in cash and cash equivalents	**3**	9	(4)
Cash and cash equivalents at beginning of period	**20**	11	15
Cash and cash equivalents at end of period	**$ 23**	$ 20	$ 11
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 303**	$ 291	$ 248
Cash (received from) paid for income taxes	**(112)**	59	(287)
Significant non-cash transactions:			
Accrued capital expenditures	**220**	191	147

See Notes to Consolidated Financial Statements

DUKE ENERGY PROGRESS, LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)		Member's Equity
Balance at December 31, 2015	$	7,059
Net income		599
Distribution to parent		(300)
Balance at December 31, 2016	$	7,358
Net income		715
Distribution to parent		(124)
Balance at December 31, 2017	$	7,949
Net income		**667**
Distribution to parent		**(175)**
Balance at December 31, 2018	**$**	**8,441**

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Duke Energy Florida, LLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Florida, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 2001.

DUKE ENERGY FLORIDA, LLC
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Operating Revenues	**$ 5,021**	$ 4,646	$ 4,568
Operating Expenses			
Fuel used in electric generation and purchased power	**2,085**	1,808	1,814
Operation, maintenance and other	**1,025**	853	884
Depreciation and amortization	**628**	560	509
Property and other taxes	**374**	347	333
Impairment charges	**54**	138	6
Total operating expenses	**4,166**	3,706	3,546
Gains on Sales of Other Assets and Other, net	**1**	1	—
Operating Income	**856**	941	1,022
Other Income and Expenses, net	**86**	96	63
Interest Expense	**287**	279	212
Income Before Income Taxes	**655**	758	873
Income Tax Expense	**101**	46	322
Net Income	**$ 554**	$ 712	$ 551
Other Comprehensive (Loss) Income, net of tax			
Unrealized (losses) gains on available-for-sale securities	**(1)**	3	1
Other Comprehensive (Loss) Income, net of tax	**(1)**	3	1
Comprehensive Income	**$ 553**	$ 715	$ 552

See Notes to Consolidated Financial Statements

DUKE ENERGY FLORIDA, LLC
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 36**	$ 13
Receivables (net of allowance for doubtful accounts of $3 at 2018 and 2017)	**143**	65
Receivables of VIEs (net of allowance for doubtful accounts of $3 at 2018 and $2 at 2017)	**362**	321
Receivables from affiliated companies	**28**	2
Notes receivable from affiliated companies	**—**	313
Inventory	**504**	574
Regulatory assets (includes $52 at 2018 and $51 at 2017 related to VIEs)	**434**	389
Other (includes $39 at 2018 and $40 at 2017 related to VIEs)	**46**	86
Total current assets	**1,553**	1,763
Property, Plant and Equipment		
Cost	**18,792**	17,730
Accumulated depreciation and amortization	**(4,968)**	(4,947)
Net property, plant and equipment	**13,824**	12,783
Other Noncurrent Assets		
Regulatory assets (includes $1,041 at 2018 and $1,091 at 2017 related to VIEs)	**2,454**	2,503
Nuclear decommissioning trust funds	**659**	736
Other	**311**	284
Total other noncurrent assets	**3,424**	**3,523**
Total Assets	**$ 18,801**	$ 18,069
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 511**	$ 602
Accounts payable to affiliated companies	**91**	74
Notes payable to affiliated companies	**108**	—
Taxes accrued	**74**	34
Interest accrued	**75**	56
Current maturities of long-term debt (includes $53 at 2018 and 2017 related to VIEs)	**270**	768
Asset retirement obligations	**5**	—
Regulatory liabilities	**102**	74
Other	**406**	334
Total current liabilities	**1,642**	1,942
Long-Term Debt (includes $1,336 at 2018 and $1,389 at 2017 related to VIEs)	**7,051**	6,327
Other Noncurrent Liabilities		
Deferred income taxes	**1,986**	1,761
Asset retirement obligations	**586**	742
Regulatory liabilities	**1,094**	1,307
Accrued pension and other post-retirement benefit costs	**254**	264
Other	**93**	108
Total other noncurrent liabilities	**4,013**	4,182
Commitments and Contingencies		
Equity		
Member's equity	**6,097**	5,614
Accumulated other comprehensive income	**(2)**	4
Total equity	**6,095**	5,618
Total Liabilities and Equity	**$ 18,801**	$ 18,069

See Notes to Consolidated Financial Statements

DUKE ENERGY FLORIDA, LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 554**	$ 712	$ 551
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and accretion	**793**	570	516
Equity component of AFUDC	**(47)**	(45)	(26)
Gains on sales of other assets	**(1)**	(1)	—
Impairment charges	**54**	138	6
Deferred income taxes	**159**	245	224
Accrued pension and other post-retirement benefit costs	**5**	(13)	2
Contributions to qualified pension plans	**(20)**	—	(20)
Payments for asset retirement obligations	**(35)**	(56)	(58)
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**7**	5	38
Receivables	**(100)**	(38)	23
Receivables from affiliated companies	**(26)**	—	21
Inventory	**58**	66	23
Other current assets	**59**	(138)	(86)
Increase (decrease) in			
Accounts payable	**(1)**	(32)	71
Accounts payable to affiliated companies	**17**	(51)	9
Taxes accrued	**40**	1	(117)
Other current liabilities	**82**	(37)	(149)
Other assets	**(428)**	(229)	(84)
Other liabilities	**(61)**	(82)	(53)
Net cash provided by operating activities	**1,109**	1,015	891
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(1,634)**	(1,437)	(1,583)
Purchases of debt and equity securities	**(517)**	(557)	(485)
Proceeds from sales and maturities of debt and equity securities	**563**	617	572
Proceeds from insurance	**—**	4	58
Proceeds from the sale of nuclear fuel	**—**	20	20
Notes receivable from affiliated companies	**313**	(313)	—
Other	**(65)**	(31)	21
Net cash used in investing activities	**(1,340)**	(1,697)	(1,397)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**988**	1,306	1,870
Payments for the redemption of long-term debt	**(769)**	(342)	(12)
Notes payable to affiliated companies	**108**	(297)	(516)
Distribution to parent	**(75)**	—	(775)
Other	**1**	(1)	—
Net cash provided by financing activities	**253**	666	567
Net increase (decrease) in cash, cash equivalents, and restricted cash	**22**	(16)	61
Cash, cash equivalents, and restricted cash at beginning of period	**53**	69	8
Cash, cash equivalents, and restricted cash at end of period	**$ 75**	$ 53	$ 69
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 270**	$ 274	$ 208
Cash (received from) paid for income taxes	**(120)**	(197)	216
Significant non-cash transactions:			
Accrued capital expenditures	**258**	199	170

See Notes to Consolidated Financial Statements

DUKE ENERGY FLORIDA, LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Member's Equity	Accumulated Other Comprehensive Income (Loss) — Net Unrealized Gains (Losses) on Available-for-Sale Securities	Total Equity
Balance at December 31, 2015	$ 5,121	$ —	$ 5,121
Net income	551	—	551
Other comprehensive income	—	1	1
Distribution to parent	(775)	—	(775)
Other	2	—	2
Balance at December 31, 2016	$ 4,899	$ 1	$ 4,900
Net income	712	—	712
Other comprehensive income	—	3	3
Other	3	—	3
Balance at December 31, 2017	$ 5,614	$ 4	$ 5,618
Net income	**554**	**—**	**554**
Other comprehensive loss	**—**	**(1)**	**(1)**
Distribution to parent	**(75)**	**—**	**(75)**
Other[(a)]	**4**	**(5)**	**(1)**
Balance at December 31, 2018	**$ 6,097**	**$ (2)**	**$ 6,095**

(a) Amounts represent a cumulative-effect adjustment due to implementation of a new accounting standard related to Financial Instruments Classification and Measurement. See Note 1 for more information.

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Duke Energy Ohio, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Ohio, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 2002.

DUKE ENERGY OHIO, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Operating Revenues			
Regulated electric	**$ 1,450**	$ 1,373	$ 1,410
Regulated natural gas	**506**	508	503
Nonregulated electric and other	**1**	42	31
Total operating revenues	**1,957**	1,923	1,944
Operating Expenses			
Fuel used in electric generation and purchased power – regulated	**412**	369	442
Fuel used in electric generation and purchased power – nonregulated	**—**	58	51
Cost of natural gas	**113**	107	103
Operation, maintenance and other	**480**	530	514
Depreciation and amortization	**268**	261	233
Property and other taxes	**290**	278	258
Impairment charges	**—**	1	—
Total operating expenses	**1,563**	1,604	1,601
(Losses) Gains on Sales of Other Assets and Other, net	**(106)**	1	2
Operating Income	**288**	320	345
Other Income and Expenses, net	**23**	23	11
Interest Expense	**92**	91	86
Income From Continuing Operations Before Income Taxes	**219**	252	270
Income Tax Expense From Continuing Operations	**43**	59	78
Income From Continuing Operations	**176**	193	192
(Loss) Income From Discontinued Operations, net of tax	**—**	(1)	36
Net Income and Comprehensive Income	**$ 176**	$ 192	$ 228

See Notes to Consolidated Financial Statements

DUKE ENERGY OHIO, INC.
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 21**	$ 12
Receivables (net of allowance for doubtful accounts of $2 at 2018 and $3 at 2017)	**102**	68
Receivables from affiliated companies	**114**	133
Notes receivable from affiliated companies	**—**	14
Inventory	**126**	133
Regulatory assets	**33**	49
Other	**24**	39
Total current assets	**420**	448
Property, Plant and Equipment		
Cost	**9,360**	8,732
Accumulated depreciation and amortization	**(2,717)**	(2,691)
Net property, plant and equipment	**6,643**	6,041
Other Noncurrent Assets		
Goodwill	**920**	920
Regulatory assets	**531**	445
Other	**41**	21
Total other noncurrent assets	**1,492**	1,386
Total Assets	**$ 8,555**	$ 7,875
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 316**	$ 313
Accounts payable to affiliated companies	**78**	62
Notes payable to affiliated companies	**274**	29
Taxes accrued	**202**	190
Interest accrued	**22**	21
Current maturities of long-term debt	**551**	3
Asset retirement obligations	**6**	3
Regulatory liabilities	**57**	36
Other	**74**	71
Total current liabilities	**1,580**	728
Long-Term Debt	**1,589**	2,039
Long-Term Debt Payable to Affiliated Companies	**25**	25
Other Noncurrent Liabilities		
Deferred income taxes	**817**	781
Asset retirement obligations	**87**	81
Regulatory liabilities	**840**	891
Accrued pension and other post-retirement benefit costs	**79**	59
Other	**93**	108
Total other noncurrent liabilities	**1,916**	1,920
Commitments and Contingencies		
Equity		
Common stock, $8.50 par value, 120 million shares authorized; 90 million shares outstanding at 2018 and 2017	**762**	762
Additional paid-in capital	**2,776**	2,670
Accumulated deficit	**(93)**	(269)
Total equity	**3,445**	3,163
Total Liabilities and Equity	**$ 8,555**	$ 7,875

See Notes to Consolidated Financial Statements

DUKE ENERGY OHIO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 176**	$ 192	$ 228
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and accretion	**271**	265	237
Equity component of AFUDC	**(11)**	(11)	(6)
Losses (Gains) on sales of other assets	**106**	(1)	(2)
Impairment charges	**—**	1	—
Deferred income taxes	**25**	90	55
Accrued pension and other post-retirement benefit costs	**3**	2	6
Contributions to qualified pension plans	**—**	(4)	(5)
Payments for asset retirement obligations	**(3)**	(7)	(5)
Provision for rate refunds	**24**	—	—
(Increase) decrease in			
Net realized and unrealized mark-to-market and hedging transactions	**—**	—	(2)
Receivables	**(33)**	2	(4)
Receivables from affiliated companies	**19**	(4)	(36)
Inventory	**7**	6	(32)
Other current assets	**16**	(22)	79
Increase (decrease) in			
Accounts payable	**(19)**	12	19
Accounts payable to affiliated companies	**16**	(1)	10
Taxes accrued	**12**	11	3
Other current liabilities	**14**	(19)	(54)
Other assets	**(26)**	(28)	(35)
Other liabilities	**(27)**	(5)	(31)
Net cash provided by operating activities	**570**	479	425
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(827)**	(686)	(476)
Notes receivable from affiliated companies	**14**	80	(94)
Other	**(89)**	(41)	(30)
Net cash used in investing activities	**(902)**	(647)	(600)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**99**	182	341
Payments for the redemption of long-term debt	**(3)**	(2)	(53)
Notes payable to affiliated companies	**245**	13	(87)
Dividends to parent	**—**	(25)	(25)
Other	**—**	(1)	(2)
Net cash provided by financing activities	**341**	167	174
Net increase (decrease) in cash and cash equivalents	**9**	(1)	(1)
Cash and cash equivalents at beginning of period	**12**	13	14
Cash and cash equivalents at end of period	**$ 21**	$ 12	$ 13
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 87**	$ 85	$ 81
Cash received from income taxes	**(6)**	(8)	(46)
Significant non-cash transactions:			
Accrued capital expenditures	**95**	82	83
Non-cash equity contribution from parent	**106**	—	—

See Notes to Consolidated Financial Statements

DUKE ENERGY OHIO, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Total Equity
Balance at December 31, 2015	$ 762	$ 2,720	$ (698)	$ 2,784
Net income	—	—	228	228
Contribution from parent	—	—	9	9
Dividends to parent	—	(25)	—	(25)
Balance at December 31, 2016	$ 762	$ 2,695	$ (461)	$ 2,996
Net income	—	—	192	192
Dividends to parent	—	(25)	—	(25)
Balance at December 31, 2017	$ 762	$ 2,670	$ (269)	$ 3,163
Net income	**—**	**—**	**176**	**176**
Contribution from parent	**—**	**106**	**—**	**106**
Balance at December 31, 2018	**$ 762**	**$ 2,776**	**$ (93)**	**$ 3,445**

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Duke Energy Indiana, LLC

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Duke Energy Indiana, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 2002.

DUKE ENERGY INDIANA, LLC
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Operating Revenues	**$ 3,059**	$ 3,047	$ 2,958
Operating Expenses			
Fuel used in electric generation and purchased power	**1,000**	966	909
Operation, maintenance and other	**788**	743	727
Depreciation and amortization	**520**	458	496
Property and other taxes	**78**	76	58
Impairment charges	**30**	18	8
Total operating expenses	**2,416**	2,261	2,198
Gains on Sales of Other Assets and Other, net	**—**	—	1
Operating Income	**643**	786	761
Other Income and Expenses, net	**45**	47	26
Interest Expense	**167**	178	181
Income Before Income Taxes	**521**	655	606
Income Tax Expense	**128**	301	225
Net Income	**$ 393**	$ 354	$ 381
Other Comprehensive Loss, net of tax			
Reclassification into earnings from cash flow hedges	**—**	—	(1)
Comprehensive Income	**$ 393**	$ 354	$ 380

See Notes to Consolidated Financial Statements

DUKE ENERGY INDIANA, LLC
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 24**	$ 9
Receivables (net of allowance for doubtful accounts of $2 at 2018 and 2017)	**52**	57
Receivables from affiliated companies	**122**	125
Inventory	**422**	450
Regulatory assets	**175**	165
Other	**35**	30
Total current assets	**830**	836
Property, Plant and Equipment		
Cost	**15,443**	14,948
Accumulated depreciation and amortization	**(4,914)**	(4,662)
Net property, plant and equipment	**10,529**	10,286
Other Noncurrent Assets		
Regulatory assets	**982**	978
Other	**194**	189
Total other noncurrent assets	**1,176**	1,167
Total Assets	**$ 12,535**	$ 12,289
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 200**	$ 196
Accounts payable to affiliated companies	**83**	78
Notes payable to affiliated companies	**167**	161
Taxes accrued	**43**	95
Interest accrued	**58**	57
Current maturities of long-term debt	**63**	3
Asset retirement obligations	**109**	54
Regulatory liabilities	**25**	24
Other	**107**	104
Total current liabilities	**855**	772
Long-Term Debt	**3,569**	3,630
Long-Term Debt Payable to Affiliated Companies	**150**	150
Other Noncurrent Liabilities		
Deferred income taxes	**1,009**	925
Asset retirement obligations	**613**	727
Regulatory liabilities	**1,722**	1,723
Accrued pension and other post-retirement benefit costs	**115**	76
Investment tax credits	**147**	147
Other	**16**	18
Total other noncurrent liabilities	**3,622**	3,616
Commitments and Contingencies		
Equity		
Member's Equity	**4,339**	4,121
Total Liabilities and Equity	**$ 12,535**	$ 12,289

See Notes to Consolidated Financial Statements

DUKE ENERGY INDIANA, LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	**$ 393**	$ 354	$ 381
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization, and accretion	**524**	462	499
Equity component of AFUDC	**(32)**	(28)	(16)
Impairment charges	**30**	18	8
Deferred income taxes	**95**	152	213
Accrued pension and other post-retirement benefit costs	**7**	2	8
Contributions to qualified pension plans	**(8)**	—	(9)
Payments for asset retirement obligations	**(69)**	(45)	(46)
Provision for rate refunds	**53**	—	—
(Increase) decrease in			
Receivables	**7**	59	(2)
Receivables from affiliated companies	**3**	(11)	(43)
Inventory	**28**	54	66
Other current assets	**(25)**	28	(67)
Increase (decrease) in			
Accounts payable	**37**	(86)	8
Accounts payable to affiliated companies	**5**	4	(9)
Taxes accrued	**(52)**	64	(4)
Other current liabilities	**14**	(10)	(81)
Other assets	**29**	(28)	(27)
Other liabilities	**(33)**	(20)	(8)
Net cash provided by operating activities	**1,006**	969	871
CASH FLOWS FROM INVESTING ACTIVITIES			
Capital expenditures	**(832)**	(840)	(755)
Purchases of debt and equity securities	**(48)**	(20)	(14)
Proceeds from sales and maturities of debt and equity securities	**44**	7	11
Proceeds from the sales of other assets	**15**	—	—
Notes receivable from affiliated companies	**—**	86	(3)
Other	**3**	(65)	32
Net cash used in investing activities	**(818)**	(832)	(729)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the issuance of long-term debt	**—**	—	494
Payments for the redemption of long-term debt	**(3)**	(5)	(478)
Notes payable to affiliated companies	**6**	161	—
Distributions to parent	**(175)**	(300)	(149)
Other	**(1)**	(1)	(1)
Net cash used in financing activities	**(173)**	(145)	(134)
Net increase (decrease) in cash and cash equivalents	**15**	(8)	8
Cash and cash equivalents at beginning of period	**9**	17	9
Cash and cash equivalents at end of period	**$ 24**	$ 9	$ 17
Supplemental Disclosures:			
Cash paid for interest, net of amount capitalized	**$ 162**	$ 179	$ 171
Cash paid for (received from) income taxes	**75**	117	(7)
Significant non-cash transactions:			
Accrued capital expenditures	**88**	125	99

See Notes to Consolidated Financial Statements

DUKE ENERGY INDIANA, LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Common Stock	Additional Paid-in Capital	Retained Earnings	Member's Equity	Accumulated Other Comprehensive Income: Net Gains on Cash Flow Hedges	Total Equity
Balance at December 31, 2015	$ 1	$ 1,384	$ 2,450	$ —	$ 1	$ 3,836
Net income	—	—	—	381	—	381
Other comprehensive loss	—	—	—	—	(1)	(1)
Distributions to parent	—	—	—	(149)	—	(149)
Transfer to Member's Equity	(1)	(1,384)	(2,450)	3,835	—	—
Balance at December 31, 2016	$ —	$ —	$ —	$ 4,067	$ —	$ 4,067
Net income	—	—	—	354	—	354
Distributions to parent	—	—	—	(300)	—	(300)
Balance at December 31, 2017	$ —	$ —	$ —	$ 4,121	$ —	$ 4,121
Net income	**—**	**—**	**—**	**393**	**—**	**393**
Distributions to parent	**—**	**—**	**—**	**(175)**	**—**	**(175)**
Balance at December 31, 2018	**$ —**	**$ —**	**$ —**	**$ 4,339**	**$ —**	**$ 4,339**

See Notes to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholder and the Board of Directors of Piedmont Natural Gas Company, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Piedmont Natural Gas Company, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations and comprehensive income, changes in equity, and cash flows, for each of the three years in the periods ended December 31, 2018, December 31, 2017, October 31 2016, and for the two months ended December 31, 2016 and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the periods ended December 31, 2018, December 31, 2017, October 31, 2016, and for the two months ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Emphasis of Matter

As discussed in Note 1 to the financial statements, effective for fiscal year 2016, the Company changed its fiscal year end from October 31 to December 31. This resulted in a two-month transition period beginning November 1, 2016 through December 31, 2016.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

We have served as the Company's auditor since 1951.

PIEDMONT NATURAL GAS COMPANY, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME

	Years Ended December 31,		Two Months Ended December 31,	Year Ended October 31,
(in millions)	**2018**	**2017**	**2016**	**2016**
Operating Revenues				
Regulated natural gas	**$ 1,365**	$ 1,319	$ 320	$ 1,139
Nonregulated natural gas and other	**10**	9	2	10
Total operating revenues	**1,375**	1,328	322	1,149
Operating Expenses				
Cost of natural gas	**584**	524	144	391
Operation, maintenance and other	**357**	304	50	353
Depreciation and amortization	**159**	148	23	137
Property and other taxes	**49**	48	7	43
Impairment charges	**—**	7	—	—
Total operating expenses	**1,149**	1,031	224	924
Operating Income	**226**	297	98	225
Equity in earnings (losses) of unconsolidated affiliates	**7**	(6)	2	29
Gain on sale of unconsolidated affiliates	**—**	—	—	133
Other income and expense, net	**14**	(11)	(2)	(1)
Total other income and expenses	**21**	(17)	—	161
Interest Expense	**81**	79	12	69
Income Before Income Taxes	**166**	201	86	317
Income Tax Expense	**37**	62	32	124
Net Income	**$ 129**	$ 139	$ 54	$ 193
Other Comprehensive Income, net of tax				
Unrealized loss from hedging activities of equity method investments	**—**	—	—	(3)
Reclassification into earnings from hedging activities of equity method investments	**—**	—	—	4
Other Comprehensive Income, net of tax	**—**	—	—	1
Comprehensive Income	**$ 129**	$ 139	$ 54	$ 194

See Notes to Consolidated Financial Statements

PIEDMONT NATURAL GAS COMPANY, INC.
CONSOLIDATED BALANCE SHEETS

(in millions)	December 31, 2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	**$ —**	$ 19
Receivables (net of allowance for doubtful accounts of $2 at 2018 and 2017)	**266**	275
Receivables from affiliated companies	**22**	7
Inventory	**70**	66
Regulatory assets	**54**	95
Other	**19**	52
Total current assets	**431**	514
Property, Plant and Equipment		
Cost	**7,486**	6,725
Accumulated depreciation and amortization	**(1,575)**	(1,479)
Net property, plant and equipment	**5,911**	5,246
Other Noncurrent Assets		
Goodwill	**49**	49
Regulatory assets	**303**	283
Investments in equity method unconsolidated affiliates	**64**	61
Other	**52**	65
Total other noncurrent assets	**468**	458
Total Assets	**$ 6,810**	$ 6,218
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts payable	**$ 203**	$ 125
Accounts payable to affiliated companies	**38**	13
Notes payable to affiliated companies	**198**	364
Taxes accrued	**84**	19
Interest accrued	**31**	31
Current maturities of long-term debt	**350**	250
Regulatory liabilities	**37**	3
Other	**58**	69
Total current liabilities	**999**	874
Long-Term Debt	**1,788**	1,787
Other Noncurrent Liabilities		
Deferred income taxes	**551**	564
Asset retirement obligations	**19**	15
Regulatory liabilities	**1,181**	1,141
Accrued pension and other post-retirement benefit costs	**4**	5
Other	**177**	170
Total other noncurrent liabilities	**1,932**	1,895
Commitments and Contingencies		
Equity		
Common stock, no par value: 100 shares authorized and outstanding at 2018 and 2017	**1,160**	860
Retained earnings	**931**	802
Total equity	**2,091**	1,662
Total Liabilities and Equity	**$ 6,810**	$ 6,218

See Notes to Consolidated Financial Statements

PIEDMONT NATURAL GAS COMPANY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	Years Ended December 31, 2018	2017	Two Months Ended December 31, 2016	Year Ended October 31, 2016
CASH FLOWS FROM OPERATING ACTIVITIES				
Net income	**$ 129**	$ 139	$ 54	$ 193
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	**161**	151	25	148
Gains on sales of other assets	**—**	—	—	(133)
Impairment charges	**—**	7	—	—
Deferred income taxes	**(31)**	154	26	74
Equity in (earnings) losses from unconsolidated affiliates	**(7)**	6	(2)	(29)
Accrued pension and other post-retirement benefit costs	**(4)**	23	5	3
Contributions to qualified pension plans	**—**	(11)	(10)	(14)
Payments for asset retirement obligations	**—**	—	(1)	(6)
Provision for rate refunds	**43**	—	—	—
(Increase) decrease in				
Receivables	**7**	(40)	(157)	12
Receivables from affiliated companies	**(15)**	—	—	(7)
Inventory	**(4)**	—	(11)	14
Other current assets	**71**	(20)	8	(98)
Increase (decrease) in				
Accounts payable	**15**	(13)	35	6
Accounts payable to affiliated companies	**25**	5	4	6
Taxes accrued	**65**	(48)	(2)	38
Other current liabilities	**21**	(9)	2	28
Other assets	**6**	7	(7)	(91)
Other liabilities	**(4)**	(2)	5	180
Net cash provided by (used in) operating activities	**478**	349	(26)	324
CASH FLOWS FROM INVESTING ACTIVITIES				
Capital expenditures	**(721)**	(585)	(113)	(522)
Contributions to equity method investments	**—**	(12)	(12)	(47)
Proceeds from the sales of other assets	**—**	—	—	175
Other	**(10)**	(6)	1	5
Net cash used in investing activities	**(731)**	(603)	(124)	(389)
CASH FLOWS FROM FINANCING ACTIVITIES				
Proceeds from the:				
Issuance of long-term debt	**100**	250	—	295
Issuance of common stock	**—**	—	—	122
Payments for the redemption of long-term debt	**—**	(35)	—	(40)
Notes payable and commercial paper	**—**	(330)	185	(195)
Notes payable to affiliated companies	**(166)**	364	—	—
Capital contribution from parent	**300**	—	—	—
Dividends to parent	**—**	—	(27)	—
Dividends paid	**—**	—	—	(114)
Other	**—**	(1)	—	—
Net cash provided by financing activities	**234**	248	158	68
Net (decrease) increase in cash and cash equivalents	**(19)**	(6)	8	3
Cash and cash equivalents at beginning of period	**19**	25	17	14
Cash and cash equivalents at end of period	**$ —**	$ 19	$ 25	$ 17
Supplemental Disclosures:				
Cash paid for interest, net of amount capitalized	**$ 79**	$ 78	$ 11	$ 81
Cash received from income taxes	**(16)**	(12)	—	(25)
Significant non-cash transactions:				
Accrued capital expenditures	**96**	34	48	63
Transfer of ownership interest of certain equity method investees to parent	**—**	149	—	—

See Notes to Consolidated Financial Statements

PIEDMONT NATURAL GAS COMPANY, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)	Common Stock	Retained Earnings	Accumulated Other Comprehensive Income (Loss) Net Gain on Hedging Activities of Unconsolidated Affiliates	Total Equity
Balance at October 31, 2015	$ 721	$ 706	$ (1)	$ 1,426
Net income	—	193	—	193
Other comprehensive income	—	—	1	1
Common stock issuances, including dividend reinvestment and employee benefits	139	—	—	139
Common stock dividends	—	(114)	—	(114)
Balance at October 31, 2016	$ 860	$ 785	$ —	$ 1,645
Net income	—	54	—	54
Dividends to parent	—	(27)	—	(27)
Balance at December 31, 2016	$ 860	$ 812	$ —	$ 1,672
Net income	—	139	—	139
Transfer of ownership interest of certain equity method investees to parent	—	(149)	—	(149)
Balance at December 31, 2017	$ 860	$ 802	$ —	$ 1,662
Net income	**—**	**129**	**—**	**129**
Contribution from parent	**300**	**—**	**—**	**300**
Balance at December 31, 2018	**$ 1,160**	**$ 931**	**$ —**	**$ 2,091**

See Notes to Consolidated Financial Statements

Index to Combined Notes To Consolidated Financial Statements

The notes to the consolidated financial statements are a combined presentation. The following table indicates the registrants to which the notes apply.

	Applicable Notes																								
Registrant	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
Duke Energy	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•
Duke Energy Carolinas	•		•	•	•	•	•	•	•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•
Progress Energy	•		•	•	•	•	•		•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•
Duke Energy Progress	•		•	•	•	•			•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•
Duke Energy Florida	•		•	•	•	•			•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•
Duke Energy Ohio	•		•	•	•	•		•	•	•	•		•	•		•	•	•		•	•	•	•	•	•	•
Duke Energy Indiana	•		•	•	•	•		•	•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•
Piedmont	•	•	•	•	•	•			•	•	•	•	•	•		•		•		•	•	•	•	•	•	•

Tables within the notes may not sum across due to (i) Progress Energy's consolidation of Duke Energy Progress, Duke Energy Florida and other subsidiaries that are not registrants and (ii) subsidiaries that are not registrants but included in the consolidated Duke Energy balances.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations and Basis of Consolidation

Duke Energy is an energy company headquartered in Charlotte, North Carolina, subject to regulation by the FERC and other regulatory agencies listed below. Duke Energy operates in the U.S. primarily through its direct and indirect subsidiaries. Certain Duke Energy subsidiaries are also subsidiary registrants, including Duke Energy Carolinas; Progress Energy; Duke Energy Progress; Duke Energy Florida; Duke Energy Ohio; Duke Energy Indiana and Piedmont. When discussing Duke Energy's consolidated financial information, it necessarily includes the results of its separate Subsidiary Registrants, which along with Duke Energy, are collectively referred to as the Duke Energy Registrants.

In October 2016, Duke Energy completed the acquisition of Piedmont. Duke Energy's consolidated financial statements include Piedmont's results of operations and cash flows activity subsequent to the acquisition date. Effective November 1, 2016, Piedmont's fiscal year-end was changed from October 31 to December 31, the year-end of Duke Energy. A transition report was filed on Form 10-Q (Form 10-QT) for the transition period from November 1, 2016, to December 31, 2016. See Note 2 for additional information regarding the acquisition.

In December 2016, Duke Energy completed an exit of the Latin American market to focus on its domestic regulated business, which was further bolstered by the acquisition of Piedmont. The sale of the International Energy business segment, excluding an equity method investment in NMC, was completed through two transactions including a sale of assets in Brazil to CTG and a sale of Duke Energy's remaining Latin American assets in Peru, Chile, Ecuador, Guatemala, El Salvador and Argentina to I Squared (collectively, the International Disposal Group). See Note 2 for additional information on the sale of International Energy.

The information in these combined notes relates to each of the Duke Energy Registrants as noted in the Index to Combined Notes to Consolidated Financial Statements. However, none of the Subsidiary Registrants make any representation as to information related solely to Duke Energy or the Subsidiary Registrants of Duke Energy other than itself.

These Consolidated Financial Statements include, after eliminating intercompany transactions and balances, the accounts of the Duke Energy Registrants and subsidiaries or VIEs where the respective Duke Energy Registrants have control. See Note 17 for additional information on VIEs. These Consolidated Financial Statements also reflect the Duke Energy Registrants' proportionate share of certain jointly owned generation and transmission facilities. See Note 8 for additional information on joint ownership. Substantially all of the Subsidiary Registrants' operations qualify for regulatory accounting.

Duke Energy Carolinas is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Carolinas is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Progress Energy is a public utility holding company, which conducts operations through its wholly owned subsidiaries, Duke Energy Progress and Duke Energy Florida. Progress Energy is subject to regulation by FERC and other regulatory agencies listed below.

Duke Energy Progress is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Progress is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Duke Energy Florida is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Florida. Duke Energy Florida is subject to the regulatory provisions of the FPSC, NRC and FERC.

Duke Energy Ohio is a regulated public utility primarily engaged in the transmission and distribution of electricity in portions of Ohio and Kentucky, the generation and sale of electricity in portions of Kentucky and the transportation and sale of natural gas in portions of Ohio and Kentucky. Duke Energy Ohio conducts competitive auctions for retail electricity supply in Ohio whereby the energy price is recovered from retail customers and recorded in Operating Revenues on the Consolidated Statements of Operations and Comprehensive Income. Operations in Kentucky are conducted through its wholly owned subsidiary, Duke Energy Kentucky. References herein to Duke Energy Ohio collectively include Duke Energy Ohio and its subsidiaries, unless otherwise noted. Duke Energy Ohio is subject to the regulatory provisions of the PUCO, KPSC and FERC.

Duke Energy Indiana is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Indiana. Duke Energy Indiana is subject to the regulatory provisions of the IURC and FERC.

Piedmont is a regulated public utility primarily engaged in the distribution of natural gas in portions of North Carolina, South Carolina and Tennessee. Piedmont is subject to the regulatory provisions of the NCUC, PSCSC, TPUC and FERC.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Other Current Assets and Liabilities

The following table provides a description of amounts included in Other within Current Assets or Current Liabilities that exceed 5 percent of total Current Assets or Current Liabilities on the Duke Energy Registrants' Consolidated Balance Sheets at either December 31, 2018, or 2017.

		December 31,	
(in millions)	**Location**	**2018**	**2017**
Duke Energy			
Income taxes receivable	Current Assets	**$ 729**	$ 330
Accrued compensation	Current Liabilities	**793**	757
Duke Energy Carolinas			
Accrued compensation	Current Liabilities	**$ 251**	$ 252
Progress Energy			
Income taxes receivable	Current Assets	**$ 66**	$ 278
Customer deposits	Current Liabilities	**345**	338
Duke Energy Progress			
Customer deposits	Current Liabilities	**$ 137**	$ 129
Accrued compensation	Current Liabilities	**130**	132
Duke Energy Florida			
Customer deposits	Current Liabilities	**$ 208**	$ 208
Other accrued liabilities	Current Liabilities	**85**	16
Duke Energy Ohio			
Income taxes receivable	Current Assets	**$ 13**	$ 36
Customer deposits	Current Liabilities	**44**	46
Duke Energy Indiana			
Customer deposits	Current Liabilities	**$ 47**	$ 45
Piedmont			
Income taxes receivable	Current Assets	**$ 11**	$ 43

Discontinued Operations

The results of operations of the International Disposal Group have been classified as Discontinued Operations on Duke Energy's Consolidated Statements of Operations. Duke Energy has elected to present cash flows of discontinued operations combined with cash flows of continuing operations. Unless otherwise noted, the notes to these consolidated financial statements exclude amounts related to discontinued operations for all periods presented. See Note 2 for additional information.

Amounts Attributable to Controlling Interests

For the years ended December 31, 2018, and 2017, the Income (Loss) From Discontinued Operations, net of tax on Duke Energy's Consolidated Statements of Operations is entirely attributable to controlling interest. For the year ended December 31, 2016, $18 million of net income is attributable to noncontrolling interests, which consisted of $7 million included in Income from Continuing Operations and $11 million included in Income (Loss) From Discontinued Operations, net of tax on Duke Energy's Consolidated Statement of Operations.

Significant Accounting Policies

Use of Estimates

In preparing financial statements that conform to GAAP, the Duke Energy Registrants must make estimates and assumptions that affect the reported amounts of assets and liabilities, the reported amounts of revenues and expenses and the disclosure of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Regulatory Accounting

The majority of the Duke Energy Registrants' operations are subject to price regulation for the sale of electricity and natural gas by state utility commissions or FERC. When prices are set on the basis of specific costs of the regulated operations and an effective franchise is in place such that sufficient natural gas or electric services can be sold to recover those costs, the Duke Energy Registrants apply regulatory accounting. Regulatory accounting changes the timing of the recognition of costs or revenues relative to a company that does not apply regulatory accounting. As a result, regulatory assets and regulatory liabilities are recognized on the Consolidated Balance Sheets. Regulatory assets and liabilities are amortized consistent with the treatment of the related cost in the ratemaking process. See Note 4 for further information.

Regulatory accounting rules also require recognition of a disallowance (also called "impairment") loss if it becomes probable that part of the cost of a plant under construction (or a recently completed plant or an abandoned plant) will be disallowed for ratemaking purposes and a reasonable estimate of the amount of the disallowance can be made. For example, if a cost cap is set for a plant still under construction, the amount of the disallowance is a result of a judgment as to the ultimate cost of the plant. These disallowances can require judgments on allowed future rate recovery.

When it becomes probable that regulated generation, transmission or distribution assets will be abandoned, the cost of the asset is removed from plant in service. The value that may be retained as a regulatory asset on the balance sheet for the abandoned property is dependent upon amounts that may be recovered through regulated rates, including any return. As such, an impairment charge could be partially or fully offset by the establishment of a regulatory asset if rate recovery is probable. The impairment charge for a disallowance of costs for regulated plants under construction, recently completed or abandoned is based on discounted cash flows.

The Duke Energy Registrants utilize cost-tracking mechanisms, commonly referred to as fuel adjustment clauses or PGA clauses. These clauses allow for the recovery of fuel and fuel-related costs, portions of purchased power, natural gas costs and hedging costs through surcharges on customer rates. The difference between the costs incurred and the surcharge revenues is recorded either as an adjustment to Operating Revenues, Operating Expenses – Fuel used in electric generation or Operating Expenses – Cost of natural gas on the Consolidated Statements of Operations, with an off-setting impact on regulatory assets or liabilities.

Cash, Cash Equivalents and Restricted Cash

All highly liquid investments with maturities of three months or less at the date of acquisition are considered cash equivalents. Duke Energy, Progress Energy and Duke Energy Florida have restricted cash balances related primarily to collateral assets, escrow deposits and VIEs. See Note 17 for additional information. Restricted cash amounts are included in Other within Current Assets and Other Noncurrent Assets on the Consolidated Balance Sheets. The following table presents the components of cash, cash equivalents and restricted cash included in the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
	Duke Energy	Progress Energy	Duke Energy Florida	Duke Energy	Progress Energy	Duke Energy Florida
Current Assets						
Cash and cash equivalents	**$ 442**	**$ 67**	**$ 36**	$ 358	$ 40	$ 13
Other	**141**	**39**	**39**	138	40	40
Other Noncurrent Assets						
Other	**8**	**6**	**—**	9	7	—
Total cash, cash equivalents and restricted cash	**$ 591**	**$ 112**	**$ 75**	$ 505	$ 87	$ 53

Inventory

Inventory is used for operations and is recorded primarily using the average cost method. Inventory related to regulated operations is valued at historical cost. Inventory related to nonregulated operations is valued at the lower of cost or market. Materials and supplies are recorded as inventory when purchased and subsequently charged to expense or capitalized to property, plant and equipment when installed. Inventory, including excess or obsolete inventory, is written-down to the lower of cost or market value. Once inventory has been written-down, it creates a new cost basis for the inventory that is not subsequently written-up. Provisions for inventory write-offs were not material at December 31, 2018, and 2017. The components of inventory are presented in the tables below.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Materials and supplies	**$ 2,238**	**$ 731**	**$ 1,049**	**$ 734**	**$ 315**	**$ 84**	**$ 312**	**$ 2**
Coal	**491**	**175**	**192**	**106**	**86**	**14**	**109**	**—**
Natural gas, oil and other	**355**	**42**	**218**	**114**	**103**	**28**	**1**	**68**
Total inventory	**$ 3,084**	**$ 948**	**$ 1,459**	**$ 954**	**$ 504**	**$ 126**	**$ 422**	**$ 70**

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Materials and supplies	$ 2,293	$ 744	$ 1,118	$ 774	$ 343	$ 82	$ 309	$ 2
Coal	603	192	255	139	116	17	139	—
Natural gas, oil and other	354	35	219	104	115	34	2	64
Total inventory	$ 3,250	$ 971	$ 1,592	$ 1,017	$ 574	$ 133	$ 450	$ 66

Investments in Debt and Equity Securities

The Duke Energy Registrants classify investments in equity securities as FV-NI and investments in debt securities as AFS. Both categories are recorded at fair value on the Consolidated Balance Sheets. Realized and unrealized gains and losses on securities classified as FV-NI are reported through net income. Unrealized gains and losses for debt securities classified as AFS are included in AOCI until realized, except OTTIs that are included in earnings immediately. At the time gains and losses for debt securities are realized, they are reported through net income. For certain investments of regulated operations, such as substantially all of the NDTF, realized and unrealized gains and losses (including any OTTIs) on debt securities are recorded as a regulatory asset or liability. The credit loss portion of debt securities of nonregulated operations are included in earnings. Investments in debt and equity securities are classified as either current or noncurrent based on management's intent and ability to sell these securities, taking into consideration current market liquidity. See Note 15 for further information.

Goodwill and Intangible Assets

Goodwill

Duke Energy, Progress Energy, Duke Energy Ohio and Piedmont perform annual goodwill impairment tests as of August 31 each year at the reporting unit level, which is determined to be a business segment or one level below. Duke Energy, Progress Energy, Duke Energy Ohio and Piedmont update these tests between annual tests if events or circumstances occur that would more likely than not reduce the fair value of a reporting unit below its carrying value. See Note 11 for further information.

Intangible Assets

Intangible assets are included in Other in Other Noncurrent Assets on the Consolidated Balance Sheets. Generally, intangible assets are amortized using an amortization method that reflects the pattern in which the economic benefits of the intangible asset are consumed or on a straight-line basis if that pattern is not readily determinable. Amortization of intangibles is reflected in Depreciation and amortization on the Consolidated Statements of Operations. Intangible assets are subject to impairment testing and if impaired, the carrying value is accordingly reduced.

Emission allowances permit the holder of the allowance to emit certain gaseous byproducts of fossil fuel combustion, including SO_2 and NO_X. Allowances are issued by the EPA at zero cost and may also be bought and sold via third-party transactions. Allowances allocated to or acquired by the Duke Energy Registrants are held primarily for consumption. Carrying amounts for emission allowances are based on the cost to acquire the allowances or, in the case of a business combination, on the fair value assigned in the allocation of the purchase price of the acquired business. Emission allowances are expensed to Fuel used in electric generation and purchased power on the Consolidated Statements of Operations.

RECs are used to measure compliance with renewable energy standards and are held primarily for consumption. See Note 11 for further information.

Long-Lived Asset Impairments

The Duke Energy Registrants evaluate long-lived assets, excluding goodwill, for impairment when circumstances indicate the carrying value of those assets may not be recoverable. An impairment exists when a long-lived asset's carrying value exceeds the estimated undiscounted cash flows expected to result from the use and eventual disposition of the asset. The estimated cash flows may be based on alternative expected outcomes that are probability weighted. If the carrying value of the long-lived asset is not recoverable based on these estimated future undiscounted cash flows, the carrying value of the asset is written-down to its then-current estimated fair value and an impairment charge is recognized.

The Duke Energy Registrants assess fair value of long-lived assets using various methods, including recent comparable third-party sales, internally developed discounted cash flow analysis and analysis from outside advisors. Triggering events to reassess cash flows may include, but are not limited to, significant changes in commodity prices, the condition of an asset or management's interest in selling the asset.

Equity Method Investment Impairments

Investments in affiliates that are not controlled by Duke Energy, but over which it has significant influence, are accounted for using the equity method. Equity method investments are assessed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable. If the decline in value is considered to be other than temporary, the investment is written down to its estimated fair value, which establishes a new cost basis in the investment.

Impairment assessments use a discounted cash flow income approach and include consideration of the severity and duration of any decline in the fair value of the investments. The estimated cash flows may be based on alternative expected outcomes that are probability weighted. Key inputs that involve estimates and significant management judgment include cash flow projections, selection of a discount rate, probability weighting of potential outcomes, and whether any decline in value is considered temporary.

Property, Plant and Equipment

Property, plant and equipment are stated at the lower of depreciated historical cost net of any disallowances or fair value, if impaired. The Duke Energy Registrants capitalize all construction-related direct labor and material costs, as well as indirect construction costs such as general engineering, taxes and financing costs. See "Allowance for Funds Used During Construction and Interest Capitalized" for information on capitalized financing costs. Costs of renewals and betterments that extend the useful life of property, plant and equipment are also capitalized. The cost of repairs, replacements and major maintenance projects, which do not extend the useful life or increase the expected output of the asset, are expensed as incurred. Depreciation is generally computed over the estimated useful life of the asset using the composite straight-line method. Depreciation studies are conducted periodically to update composite rates and are approved by state utility commissions and/or the FERC when required. The composite weighted average depreciation rates, excluding nuclear fuel, are included in the table that follows.

	Years Ended December 31,		
	2018	**2017**	**2016**
Duke Energy	**3.0%**	2.8%	2.8%
Duke Energy Carolinas	**2.8%**	2.8%	2.8%
Progress Energy	**2.9%**	2.6%	2.7%
Duke Energy Progress	**2.9%**	2.6%	2.6%
Duke Energy Florida	**3.0%**	2.8%	2.8%
Duke Energy Ohio	**2.8%**	2.8%	2.6%
Duke Energy Indiana	**3.3%**	3.0%	3.1%
Piedmont[(a)]	**2.5%**	2.3%	

(a) Piedmont's weighted average depreciation rate was 2.4 percent for the annualized two months ended December 31, 2016, and for the year ended October 31, 2016.

In general, when the Duke Energy Registrants retire regulated property, plant and equipment, the original cost plus the cost of retirement, less salvage value and any depreciation already recognized, is charged to accumulated depreciation. However, when it becomes probable the asset will be retired substantially in advance of its original expected useful life or is abandoned, the cost of the asset and the corresponding accumulated depreciation is recognized as a separate asset. If the asset is still in operation, the net amount is classified as Generation facilities to be retired, net on the Consolidated Balance Sheets. If the asset is no longer operating, the net amount is classified in Regulatory assets on the Consolidated Balance Sheets if deemed recoverable (see discussion of long-lived asset impairments above). When it becomes probable an asset will be abandoned, the cost of the asset and accumulated depreciation is reclassified to Regulatory assets on the Consolidated Balance Sheets for amounts recoverable in rates. The carrying value of the asset is based on historical cost if the Duke Energy Registrants are allowed to recover the remaining net book value and a return equal to at least the incremental borrowing rate. If not, an impairment is recognized to the extent the net book value of the asset exceeds the present value of future revenues discounted at the incremental borrowing rate.

When the Duke Energy Registrants sell entire regulated operating units, or retire or sell nonregulated properties, the original cost and accumulated depreciation and amortization balances are removed from Property, Plant and Equipment on the Consolidated Balance Sheets. Any gain or loss is recorded in earnings, unless otherwise required by the applicable regulatory body. See Note 10 for additional information.

Nuclear Fuel

Nuclear fuel is classified as Property, Plant and Equipment on the Consolidated Balance Sheets.

Nuclear fuel in the front-end fuel processing phase is considered work in progress and not amortized until placed in service. Amortization of nuclear fuel is included within Fuel used in electric generation and purchased power on the Consolidated Statements of Operations. Amortization is recorded using the units-of-production method.

Allowance for Funds Used During Construction and Interest Capitalized

For regulated operations, the debt and equity costs of financing the construction of property, plant and equipment are reflected as AFUDC and capitalized as a component of the cost of property, plant and equipment. AFUDC equity is reported on the Consolidated Statements of Operations as non-cash income in Other income and expenses, net. AFUDC debt is reported as a non-cash offset to Interest Expense. After construction is completed, the Duke Energy Registrants are permitted to recover these costs through their inclusion in rate base and the corresponding subsequent depreciation or amortization of those regulated assets.

AFUDC equity, a permanent difference for income taxes, reduces the ETR when capitalized and increases the ETR when depreciated or amortized. See Note 23 for additional information.

For nonregulated operations, interest is capitalized during the construction phase with an offsetting non-cash credit to Interest Expense on the Consolidated Statements of Operations.

Asset Retirement Obligations

AROs are recognized for legal obligations associated with the retirement of property, plant and equipment. Substantially all AROs are related to regulated operations. When recording an ARO, the present value of the projected liability is recognized in the period in which it is incurred, if a reasonable estimate of fair value can be made. The liability is accreted over time. For operating plants, the present value of the liability is added to the cost of the associated asset and depreciated over the remaining life of the asset. For retired plants, the present value of the liability is recorded as a regulatory asset unless determined not to be probable of recovery.

The present value of the initial obligation and subsequent updates are based on discounted cash flows, which include estimates regarding timing of future cash flows, selection of discount rates and cost escalation rates, among other factors. These estimates are subject to change. Depreciation expense is adjusted prospectively for any changes to the carrying amount of the associated asset. The Duke Energy Registrants receive amounts to fund the cost of the ARO for regulated operations through a combination of regulated revenues and earnings on the NDTF. As a result, amounts recovered in regulated revenues, earnings on the NDTF, accretion expense and depreciation of the associated asset are netted and deferred as a regulatory asset or liability.

Obligations for nuclear decommissioning are based on site-specific cost studies. Duke Energy Carolinas and Duke Energy Progress assume prompt dismantlement of the nuclear facilities after operations are ceased. Duke Energy Florida assumes Crystal River Unit 3 will be placed into a safe storage configuration until eventual dismantlement is completed by 2074. Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida also assume that spent fuel will be stored on-site until such time that it can be transferred to a yet to be built DOE facility.

Obligations for closure of ash basins are based upon discounted cash flows of estimated costs for site-specific plans, if known, or probability weightings of the potential closure methods if the closure plans are under development and multiple closure options are being considered and evaluated on a site-by-site basis. See Note 9 for additional information.

Revenue Recognition

Duke Energy recognizes revenue as customers obtain control of promised goods and services in an amount that reflects consideration expected in exchange for those goods or services. Generally, the delivery of electricity and natural gas results in the transfer of control to customers at the time the commodity is delivered and the amount of revenue recognized is equal to the amount billed to each customer, including estimated volumes delivered when billings have not yet occurred. See Note 18 for further information.

Derivatives and Hedging

Derivative and non-derivative instruments may be used in connection with commodity price and interest rate activities, including swaps, futures, forwards and options. All derivative instruments, except those that qualify for the NPNS exception, are recorded on the Consolidated Balance Sheets at fair value. Qualifying derivative instruments may be designated as either cash flow hedges or fair value hedges. Other derivative instruments (undesignated contracts) either have not been designated or do not qualify as hedges. The effective portion of the change in the fair value of cash flow hedges is recorded in AOCI. The effective portion of the change in the fair value of a fair value hedge is offset in net income by changes in the hedged item. For activity subject to regulatory accounting, gains and losses on derivative contracts are reflected as regulatory assets or liabilities and not as other comprehensive income or current period income. As a result, changes in fair value of these derivatives have no immediate earnings impact.

Formal documentation, including transaction type and risk management strategy, is maintained for all contracts accounted for as a hedge. At inception and at least every three months thereafter, the hedge contract is assessed to see if it is highly effective in offsetting changes in cash flows or fair values of hedged items.

See Note 14 for further information.

Captive Insurance Reserves

Duke Energy has captive insurance subsidiaries that provide coverage, on an indemnity basis, to the Subsidiary Registrants as well as certain third parties, on a limited basis, for financial losses, primarily related to property, workers' compensation and general liability. Liabilities include provisions for estimated losses IBNR, as well as estimated provisions for known claims. IBNR reserve estimates are primarily based upon historical loss experience, industry data and other actuarial assumptions. Reserve estimates are adjusted in future periods as actual losses differ from experience.

Duke Energy, through its captive insurance entities, also has reinsurance coverage with third parties for certain losses above a per occurrence and/or aggregate retention. Receivables for reinsurance coverage are recognized when realization is deemed probable.

Unamortized Debt Premium, Discount and Expense

Premiums, discounts and expenses incurred with the issuance of outstanding long-term debt are amortized over the term of the debt issue. The gain or loss on extinguishment associated with refinancing higher-cost debt obligations in the regulated operations is amortized. Amortization expense is recorded as Interest Expense in the Consolidated Statements of Operations and is reflected as Depreciation, amortization and accretion within Net cash provided by operating activities on the Consolidated Statements of Cash Flows.

Premiums, discounts and expenses are presented as an adjustment to the carrying value of the debt amount and included in Long-Term Debt on the Consolidated Balance Sheets presented.

Loss Contingencies and Environmental Liabilities

Contingent losses are recorded when it is probable a loss has occurred and can be reasonably estimated. When a range of the probable loss exists and no amount within the range is a better estimate than any other amount, the minimum amount in the range is recorded. Unless otherwise required by GAAP, legal fees are expensed as incurred.

Environmental liabilities are recorded on an undiscounted basis when environmental remediation or other liabilities become probable and can be reasonably estimated. Environmental expenditures related to past operations that do not generate current or future revenues are expensed. Environmental expenditures related to operations that generate current or future revenues are expensed or capitalized, as appropriate. Certain environmental expenditures receive regulatory accounting treatment and are recorded as regulatory assets.

See Notes 4 and 5 for further information.

Pension and Other Post-Retirement Benefit Plans

Duke Energy maintains qualified, non-qualified and other post-retirement benefit plans. Eligible employees of the Subsidiary Registrants participate in the respective qualified, non-qualified and other post-retirement benefit plans and the Subsidiary Registrants are allocated their proportionate share of benefit costs. See Note 22 for further information, including significant accounting policies associated with these plans.

Severance and Special Termination Benefits

Duke Energy has severance plans under which in general, the longer a terminated employee worked prior to termination the greater the amount of severance benefits. A liability for involuntary severance is recorded once an involuntary severance plan is committed to by management if involuntary severances are probable and can be reasonably estimated. For involuntary severance benefits incremental to its ongoing severance plan benefits, the fair value of the obligation is expensed at the communication date if there are no future service requirements or over the required future service period. Duke Energy also offers special termination benefits under voluntary severance programs. Special termination benefits are recorded immediately upon employee acceptance absent a significant retention period. Otherwise, the cost is recorded over the remaining service period. Employee acceptance of voluntary severance benefits is determined by management based on the facts and circumstances of the benefits being offered. See Note 20 for further information.

Guarantees

If necessary, liabilities are recognized at the time of issuance or material modification of a guarantee for the estimated fair value of the obligation it assumes. Fair value is estimated using a probability-weighted approach. The obligation is reduced over the term of the guarantee or related contract in a systematic and rational method as risk is reduced. Any additional contingent loss for guarantee contracts subsequent to the initial recognition of a liability is accounted for and recognized at the time a loss is probable and can be reasonably estimated. See Note 7 for further information.

Stock-Based Compensation

Stock-based compensation represents costs related to stock-based awards granted to employees and Board of Directors members. Duke Energy recognizes stock-based compensation based upon the estimated fair value of awards, net of estimated forfeitures at the date of issuance. The recognition period for these costs begins at either the applicable service inception date or grant date and continues throughout the requisite service period. Compensation cost is recognized as expense or capitalized as a component of property, plant and equipment. See Note 21 for further information.

Income Taxes

Duke Energy and its subsidiaries file a consolidated federal income tax return and other state and foreign jurisdictional returns. The Subsidiary Registrants are parties to a tax-sharing agreement with Duke Energy. Income taxes recorded represent amounts the Subsidiary Registrants would incur as separate C-Corporations. Deferred income taxes have been provided for temporary differences between GAAP and tax bases of assets and liabilities because the differences create taxable or tax-deductible amounts for future periods. ITCs associated with regulated operations are deferred and amortized as a reduction of income tax expense over the estimated useful lives of the related properties.

Accumulated deferred income taxes are valued using the enacted tax rate expected to apply to taxable income in the periods in which the deferred tax asset or liability is expected to be settled or realized. In the event of a change in tax rates, deferred tax assets and liabilities are remeasured as of the enactment date of the new rate. To the extent that the change in the value of the deferred tax represents an obligation to customers, the impact of the remeasurement is deferred to a regulatory liability. Remaining impacts are recorded in income from continuing operations. If Duke Energy's estimate of the tax effect of reversing temporary differences is not reflective of actual outcomes, is modified to reflect new developments or interpretations of the tax law, revised to incorporate new accounting principles, or changes in the expected timing or manner of the reversal then Duke Energy's results of operations could be impacted.

Tax-related interest and penalties are recorded in Interest Expense and Other Income and Expenses, net in the Consolidated Statements of Operations.

See Note 23 for further information.

Accounting for Renewable Energy Tax Credits

When Duke Energy receives ITCs on wind or solar facilities, it reduces the basis of the property recorded on the Consolidated Balance Sheets by the amount of the ITC and, therefore, the ITC benefit is ultimately recognized in the statement of operations through reduced depreciation expense. Additionally, certain tax credits and government grants result in an initial tax depreciable base in excess of the book carrying value by an amount equal to one half of the ITC. Deferred tax benefits are recorded as a reduction to income tax expense in the period that the basis difference is created.

Excise Taxes

Certain excise taxes levied by state or local governments are required to be paid even if not collected from the customer. These taxes are recognized on a gross basis. Otherwise, the taxes are accounted for net. Excise taxes accounted for on a gross basis within both Operating Revenues and Property and other taxes in the Consolidated Statements of Operations were as follows.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Duke Energy	**$ 405**	$ 376	$ 362
Duke Energy Carolinas	**35**	36	31
Progress Energy	**241**	220	213
Duke Energy Progress	**19**	19	18
Duke Energy Florida	**222**	201	195
Duke Energy Ohio	**105**	98	100
Duke Energy Indiana	**22**	20	17
Piedmont[(a)]	**2**	2	

(a) Piedmont's excise taxes were immaterial for the two months ended December 31, 2016, and $2 million for the year ended October 31, 2016.

Dividend Restrictions and Unappropriated Retained Earnings

Duke Energy does not have any legal, regulatory or other restrictions on paying common stock dividends to shareholders. However, as further described in Note 4, due to conditions established by regulators in conjunction with merger transaction approvals, Duke Energy Carolinas, Duke Energy Progress, Duke Energy Ohio, Duke Energy Indiana and Piedmont have restrictions on paying dividends or otherwise advancing funds to Duke Energy. At December 31, 2018, and 2017, an insignificant amount of Duke Energy's consolidated Retained earnings balance represents undistributed earnings of equity method investments.

New Accounting Standards

The new accounting standards adopted for 2018 and 2017 had no material impact on the presentation or results of operations, cash flows or financial position of the Duke Energy Registrants. The following accounting standards were adopted by the Duke Energy Registrants during 2018.

Revenue from Contracts with Customers. In May 2014, the FASB issued revised accounting guidance for revenue recognition from contracts with customers. The core principle of this guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration expected in exchange for those goods or services. The amendments also required disclosure of sufficient information to allow users to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The majority of Duke Energy's revenue is in scope of the new guidance. Other revenue arrangements, such as alternative revenue programs and certain PPAs and lighting agreements accounted for as leases, are excluded from the scope of this guidance and, therefore, are accounted for and evaluated for separate presentation and disclosure under other relevant accounting guidance.

Duke Energy elected the modified retrospective method of adoption effective January 1, 2018. Under the modified retrospective method of adoption, prior year reported results are not restated. Adoption of this standard did not result in a material change in the timing or pattern of revenue recognition and a cumulative-effect adjustment was not recorded at January 1, 2018. Duke Energy utilized certain practical expedients including applying this guidance to open contracts at the date of adoption, expensing costs to obtain a contract where the amortization period of the asset would have been one year or less, ignoring the effects of a significant financing when the period between transfer of the good or service and payment is one year or less and recognizing revenues for certain contracts under the invoice practical expedient, which allows revenue recognition to be consistent with invoiced amounts (including unbilled estimates) provided certain criteria are met, including consideration of whether the invoiced amounts reasonably represent the value provided to customers.

In preparation for adoption, Duke Energy identified material revenue streams and reviewed representative contracts and tariffs, including those associated with certain long-term customer contracts such as wholesale contracts, PPAs and other customer arrangements. Duke Energy also monitored the activities of the power and utilities industry revenue recognition task force and has reviewed published positions on specific industry issues to evaluate the impact, if any, on Duke Energy's specific contracts and conclusions. Duke Energy applied the available practical expedient to portfolios of tariffs and contracts with similar characteristics. The vast majority of sales, including energy provided to retail customers, are from tariff offerings that provide natural gas or electricity without a defined contractual term ("at-will"). In most circumstances, revenue from contracts with customers is equivalent to the electricity or natural gas supplied and billed in that period (including unbilled estimates). As such, adoption of the new rules did not result in a shift in the timing or pattern of revenue recognition for such sales. While there have been changes to the captions and descriptions of revenues in Duke Energy's financial statements, the most significant impact as a result of adopting the standard are additional disclosures around the nature, amount, timing and uncertainty of revenues and cash flows arising from contracts with customers. See Note 18 for further information.

Financial Instruments Classification and Measurement. On January 1, 2018, Duke Energy adopted FASB guidance, which revised the classification and measurement of certain financial instruments. The adopted guidance changes the presentation of realized and unrealized gains and losses in certain equity securities that were previously recorded in AOCI. These gains and losses are now recorded in net income. An entity's equity investments that are accounted for under the equity method of accounting are not included within the scope of the new guidance. This guidance had a minimal impact on the Duke Energy Registrant's Consolidated Statements of Operations and Comprehensive Income as changes in the fair value of most of the Duke Energy Registrants' equity securities are deferred as regulatory assets or liabilities pursuant to accounting guidance for regulated operations. The resulting adjustment of unrealized gains and losses in AOCI to retained earnings was immaterial. The primary impact to Duke Energy as a result of implementing this guidance is adding disclosure requirements to present separately the financial assets and financial liabilities by measurement category and form of financial asset. See Notes 15 and 16 for further information.

Statement of Cash Flows. In November 2016, the FASB issued revised accounting guidance to reduce diversity in practice for the presentation and classification of restricted cash on the Consolidated Statements of Cash Flows. Under the updated guidance, restricted cash and restricted cash equivalents are included within beginning-of-period and end-of-period cash and cash equivalents on the Consolidated Statements of Cash Flows. Duke Energy adopted this guidance on January 1, 2018. The guidance has been applied using a retrospective transition method to each period presented. The adoption by Duke Energy of the revised guidance resulted in a change to the amount of Cash, cash equivalents and restricted cash explained when reconciling the beginning-of-period and end-of-period total amounts shown on the Consolidated Statements of Cash Flows. In addition, a reconciliation has been provided of Cash, cash equivalents and restricted cash reported within the Consolidated Balance Sheets that sums to the total of the same such amounts in the Consolidated Statements of Cash Flows. Prior to adoption, the Duke Energy Registrants reflected changes in noncurrent restricted cash within Cash Flows from Investing Activities and changes in current restricted cash within Cash Flows from Operating Activities on the Consolidated Statements of Cash Flows.

In August 2016, the FASB issued accounting guidance addressing diversity in practice for eight separate cash flow issues. The guidance requires entities to classify distributions received from equity method investees using either the cumulative earnings approach or the nature of the distribution approach. Duke Energy adopted this guidance on January 1, 2018, and elected the nature of distribution approach. This approach requires all distributions received to be categorized based on legal documentation describing the nature of the activities generating the distribution. Cash inflows resulting in a return on investment (surplus) will be reflected in Cash Flows from Operating Activities on the Consolidated Statements of Cash Flows, whereas cash inflows resulting in a return of investment (capital) will be reflected in Cash Flows from Investing Activities on the Consolidated Statements of Cash Flows. The guidance has been applied using the retrospective transition method to each period presented. There are no changes to the Consolidated Statements of Cash Flows for the periods presented as a result of this accounting change.

Retirement Benefits. In March 2017, the FASB issued revised accounting guidance for the presentation of net periodic costs related to benefit plans. Previous guidance required the aggregation of all the components of net periodic costs on the Consolidated Statements of Operations and did not require the disclosure of the location of net periodic costs on the Consolidated Statements of Operations. Under the amended guidance, the service cost component of net periodic costs is included within Operating Income within the same line as other compensation expenses. All other components of net periodic costs are outside of Operating Income. In addition, the updated guidance permits only the service cost component of net periodic costs to be capitalized to Inventory or Property, Plant and Equipment. This represents a change from previous guidance, which permitted all components of net periodic costs to be eligible for capitalization.

Duke Energy adopted this guidance on January 1, 2018. Under previous guidance, Duke Energy presented the total non-capitalized net periodic costs within Operation, maintenance and other on the Consolidated Statements of Operations. The adoption of this guidance resulted in a retrospective change to reclassify the presentation of the non-service cost (benefit) components of net periodic costs to Other income and expenses. Duke Energy utilized the practical expedient for retrospective presentation. The change in components of net periodic costs eligible for capitalization is applicable prospectively. Since Duke Energy’s service cost component is greater than the total net periodic costs, the change results in increased capitalization of net periodic costs, higher Operation, maintenance and other and higher Other income and expenses. The resulting prospective impact to Duke Energy is an immaterial increase in Net Income. See Note 22 for further information.

For Duke Energy, the retrospective change resulted in higher Operation, maintenance and other and higher Other income and expenses, net, of $156 million and $139 million for the years ended December 31, 2017, and 2016, respectively. There was no change to Net Income for these prior periods.

The following new accounting standards have been issued, but have not yet been adopted by the Duke Energy Registrants, as of December 31, 2018.

Leases. In February 2016, the FASB issued revised accounting guidance for leases. The core principle of this guidance is that a lessee should recognize the assets and liabilities that arise from leases on the balance sheet.

For Duke Energy, this guidance is effective for interim and annual periods beginning January 1, 2019. The guidance will be applied using a modified retrospective approach. Under the modified retrospective approach of adoption, prior year reported results are not restated and a cumulative-effect adjustment, if applicable, is recorded to retained earnings at January 1, 2019. Upon adoption, agreements considered leases for the use of certain aircraft, space on communication towers, industrial equipment, fleet vehicles, fuel transportation (barges and railcars), land and office space will be recognized on the balance sheet. Duke Energy expects to adopt the following practical expedients:

Practical Expedient	Description	Election
Package of transition practical expedients (for leases commenced prior to adoption date and must be adopted as a package)	Do not need to 1) reassess whether any expired or existing contracts are/or contain leases, 2) reassess the lease classification for any expired or existing leases and 3) reassess initial direct costs for any existing leases.	Duke Energy plans to elect this practical expedient.
Short-term lease expedient (elect by class of underlying asset)	Elect as an accounting policy to not apply the recognition requirements to short-term leases by asset class.	Duke Energy plans to elect this practical expedient for all asset classes.
Lease and non-lease components (elect by class of underlying asset)	Elect as an accounting policy to not separate non-lease components from lease components and instead account for each lease and associated non-lease component as a single lease component by asset class.	Duke Energy plans to elect this practical expedient for all asset classes.
Hindsight expedient (when determining lease term)	Elect to use hindsight to determine the lease term.	Duke Energy plans to elect this practical expedient.
Existing and expired land easements not previously accounted for as leases	Elect to not evaluate existing or expired easements under the new guidance and carry forward current accounting treatment.	Duke Energy plans to elect this practical expedient.
Comparative reporting requirements for initial adoption	Elect to apply transition requirements at adoption date, recognize cumulative effect adjustment to retained earnings in period of adoption and not apply ASC 842 to comparative periods, including disclosures.	Duke Energy plans to elect this practical expedient.
Lessor expedient (elect by class of underlying asset)	Elect as an accounting policy to aggregate non-lease components with the related lease component when specified conditions are met by asset class. Account for the combined component based on its predominant characteristic (revenue or operating lease).	Duke Energy plans to elect this practical expedient for all asset classes.

Duke Energy currently expects to record right-of-use assets and operating lease liabilities on its balance sheet as shown in approximate amounts in the table below:

		(in millions)
Duke Energy	$	1,700
Duke Energy Carolinas		150
Progress Energy		850
Duke Energy Progress		400
Duke Energy Florida		450
Duke Energy Ohio		25
Duke Energy Indiana		60
Piedmont		30

In addition to the recognition of operating leases on the balance sheet, Duke Energy expects additional disclosures including both finance and operating lease costs, short-term lease costs, variable lease costs, weighted-average remaining lease term as well as weighted-average discount rates. Duke Energy does not expect a material change to its financial statements from adoption of the new standard for contracts where it is the lessor.

2. ACQUISITIONS AND DISPOSITIONS

ACQUISITIONS

The Duke Energy Registrants consolidate assets and liabilities from acquisitions as of the purchase date and include earnings from acquisitions in consolidated earnings after the purchase date.

2016 Acquisition of Piedmont Natural Gas

On October 3, 2016, Duke Energy acquired all outstanding common stock of Piedmont for a total cash purchase price of $5.0 billion and assumed Piedmont's existing long-term debt, which had a fair value of approximately $2.0 billion at the time of the acquisition. The acquisition provides a foundation for Duke Energy to establish a broader, long-term strategic natural gas infrastructure platform to complement its existing natural gas pipeline investments and regulated natural gas business in the Midwest. In connection with the closing of the acquisition, Piedmont became a wholly owned subsidiary of Duke Energy.

Accounting Charges Related to the Acquisition

Duke Energy incurred pretax transaction and integration costs associated with the acquisition of $84 million, $103 million and $439 million for the years ended December 31, 2018, 2017 and 2016, respectively. Amounts recorded on the Consolidated Statements of Operations in 2018 and 2017 were primarily system integration costs of $78 million and $71 million, respectively, related to combining the various operational and financial systems of Duke Energy and Piedmont, including a one-time software impairment resulting from planned accounting system and process integration in 2017. A $7 million charge was recorded within Impairment Charges, with the remaining $64 million recorded within Operation, maintenance and other in 2017.

Amounts recorded in 2016 include:

- Interest expense of $234 million related to the acquisition financing, including realized losses on forward-starting interest rate swaps of $190 million. See Note 14 for additional information on the swaps.
- Charges of $104 million related to commitments made in conjunction with the transaction, including charitable contributions and a one-time bill credit to Piedmont customers. $10 million was recorded as a reduction in Operating Revenues, with the remaining $94 million recorded within Operation, maintenance and other.
- Other transaction and integration costs of $101 million recorded to Operation, maintenance and other, including professional fees and severance charges.

The majority of transition and integration activities were completed by the end of 2018.

Pro Forma Financial Information

The following unaudited pro forma financial information reflects the combined results of operations of Duke Energy and Piedmont as if the merger had occurred as of January 1, 2015. The pro forma financial information does not include potential cost savings, intercompany revenues, Piedmont's earnings from a certain equity method investment sold immediately prior to the merger or non-recurring transaction and integration costs incurred by Duke Energy and Piedmont. The after-tax transaction and integration costs incurred by Duke Energy and Piedmont were $279 million for the year ended December 31, 2016.

This information has been presented for illustrative purposes only and is not necessarily indicative of the consolidated results of operations that would have been achieved or the future consolidated results of operations of Duke Energy.

	Year Ended December 31,	
(in millions)		**2016**
Operating Revenues	$	23,504
Net Income Attributable to Duke Energy Corporation		2,442

Piedmont's Earnings

Piedmont's revenues and net income included in Duke Energy's Consolidated Statements of Operations for the year ended December 31, 2016, were $367 million and $20 million, respectively. Piedmont's revenues and net income for the year ended December 31, 2016, include the impact of non-recurring transaction costs of $10 million and $46 million, respectively.

DISPOSITIONS

For the years ended December 31, 2018, and 2017, the Income (Loss) from Discontinued Operations, net of tax, was immaterial. The following table summarizes the Loss from Discontinued Operations, net of tax recorded on Duke Energy's Consolidated Statements of Operations for the year ended December 31, 2016:

	Year Ended December 31,	
(in millions)		**2016**
International Disposal Group	$	(534)
Other[(a)]		126
Loss from Discontinued Operations, net of tax	$	(408)

(a) Amount represents an income tax benefit resulting from immaterial out of period deferred tax liability adjustments for previously sold businesses not related to the International Disposal Group.

2016 Sale of International Energy

In February 2016, Duke Energy announced it had initiated a process to divest the International Disposal Group, and in October 2016, announced it had entered into two separate purchase and sale agreements to execute the divestiture. Both sales closed in December of 2016, resulting in available cash proceeds of $1.9 billion, excluding transaction costs. Proceeds were primarily used to reduce the Parent debt. Existing favorable tax attributes result in no immediate U.S. federal-level cash tax impacts. Details of each transaction are as follows:

- On December 20, 2016, Duke Energy closed on the sale of its ownership interests in businesses in Argentina, Chile, Ecuador, El Salvador, Guatemala and Peru to I Squared Capital. The assets sold included approximately 2,230 MW of hydroelectric and natural gas generation capacity, transmission infrastructure and natural gas processing facilities. I Squared Capital purchased the businesses for an enterprise value of $1.2 billion.
- On December 29, 2016, Duke Energy closed on the sale of its Brazilian business, which included approximately 2,090 MW of hydroelectric generation capacity, to CTG for an enterprise value of $1.2 billion. With the closing of the CTG deal, Duke Energy finalized its exit from the Latin American market.

Assets Held For Sale and Discontinued Operations

As a result of the transactions, the International Disposal Group was classified as held for sale and as discontinued operations in the fourth quarter of 2016. Interest expense directly associated with the International Disposal Group was allocated to discontinued operations. No interest from corporate level debt was allocated to discontinued operations.

The following table presents the results of the International Disposal Group for the year ended December 31, 2016, which are included in Loss from Discontinued Operations, net of tax in Duke Energy's Consolidated Statements of Operations.

	Year Ended December 31,	
(in millions)		**2016**
Operating Revenues	$	988
Fuel used in electric generation and purchased power		227
Cost of natural gas		43
Operation, maintenance and other		341
Depreciation and amortization[(a)]		62
Property and other taxes		15
Impairment charges [(b)]		194
(Losses) Gains on Sales of Other Assets and Other, net		(3)
Other Income and Expenses, net		58
Interest Expense		82
Pretax loss on disposal[(c)]		(514)
Loss before income taxes[(d)]		(435)
Income tax expense[(e)(f)]		99
Loss from discontinued operations of the International Disposal Group	$	(534)

(a) Upon meeting the criteria for assets held for sale, beginning in the fourth quarter of 2016 depreciation expense ceased.
(b) In conjunction with the advancements of marketing efforts during 2016, Duke Energy performed recoverability tests of the long-lived asset groups of International Energy. As a result, Duke Energy determined the carrying value of certain assets in Central America was not fully recoverable and recorded a pretax impairment charge of $194 million. The charge represents the excess of carrying value over the estimated fair value of the assets, which was based on a Level 3 Fair Value measurement that was primarily determined from the income approach using discounted cash flows but also considered market information obtained in 2016.
(c) The pretax loss on disposal includes the recognition of cumulative foreign currency translation losses of $620 million as of the disposal date. See the Consolidated Statements of Changes in Equity for additional information.
(d) Pretax Loss attributable to Duke Energy Corporation was $(445) million for the year ended December 31, 2016.
(e) Amount includes $126 million of income tax expense on the disposal, which primarily reflects in-country taxes incurred as a result of the sale. The after-tax loss on disposal was $640 million.
(f) Amount includes an income tax benefit of $95 million. See Note 23, "Income Taxes," for additional information.

Duke Energy has elected not to separately disclose discontinued operations on the Consolidated Statements of Cash Flows. The following table summarizes Duke Energy's cash flows from discontinued operations related to the International Disposal Group.

	Year Ended December 31,	
(in millions)		**2016**
Cash flows provided by (used in):		
Operating activities	$	204
Investing activities		(434)

Other Sale Related Matters

During 2017, Duke Energy provided certain transition services to CTG and I Squared Capital. Cash flows related to providing the transition services were not material as of December 31, 2017. All transition services related to the International Disposal Group ended in 2017. Additionally, Duke Energy will reimburse CTG and I Squared Capital for all tax obligations arising from the period preceding consummation on the transactions, and recorded a liability of $54 million and $78 million as of December 31, 2018, and 2017, respectively. Duke Energy has not recorded any other liabilities, contingent liabilities or indemnifications related to the International Disposal Group.

3. BUSINESS SEGMENTS

Reportable segments are determined based on information used by the chief operating decision-maker in deciding how to allocate resources and evaluate the performance of the business. Duke Energy evaluates segment performance based on segment income. Segment income is defined as income from continuing operations net of income attributable to noncontrolling interests. Segment income, as discussed below, includes intercompany revenues and expenses that are eliminated on the Consolidated Financial Statements. Certain governance costs are allocated to each segment. In addition, direct interest expense and income taxes are included in segment income.

Products and services are sold between affiliate companies and reportable segments of Duke Energy at cost. Segment assets as presented in the tables that follow exclude all intercompany assets.

Duke Energy

Duke Energy's segment structure includes the following segments: Electric Utilities and Infrastructure, Gas Utilities and Infrastructure and Commercial Renewables.

The Electric Utilities and Infrastructure segment includes Duke Energy's regulated electric utilities in the Carolinas, Florida and the Midwest. The regulated electric utilities conduct operations through the Subsidiary Registrants that are substantially all regulated and, accordingly, qualify for regulatory accounting treatment. Electric Utilities and Infrastructure also includes Duke Energy's commercial electric transmission infrastructure investments.

The Gas Utilities and Infrastructure segment includes Piedmont, Duke Energy's natural gas local distribution companies in Ohio and Kentucky, and Duke Energy's natural gas storage and midstream pipeline investments. Gas Utilities and Infrastructure's operations are substantially all regulated and, accordingly, qualify for regulatory accounting treatment.

The Commercial Renewables segment is primarily comprised of nonregulated utility scale wind and solar generation assets located throughout the U.S.

The remainder of Duke Energy's operations is presented as Other, which is primarily comprised of interest expense on holding company debt, unallocated corporate costs and Duke Energy's wholly owned captive insurance company, Bison. Other also includes Duke Energy's interest in NMC. See Note 12 for additional information on the investment in NMC.

Business segment information is presented in the following tables. Segment assets presented exclude intercompany assets.

	Year Ended December 31, 2018						
(in millions)	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Commercial Renewables	Total Reportable Segments	Other	Eliminations	Total
Unaffiliated Revenues	$ 22,242	$ 1,783	$ 477	$ 24,502	$ 19	$ —	$ 24,521
Intersegment Revenues	31	98	—	129	70	(199)	—
Total Revenues	$ 22,273	$ 1,881	$ 477	$ 24,631	$ 89	$ (199)	$ 24,521
Interest Expense	$ 1,288	$ 106	$ 88	$ 1,482	$ 657	$ (45)	$ 2,094
Depreciation and amortization	3,523	245	155	3,923	152	(1)	4,074
Equity in earnings (losses) of unconsolidated affiliates	5	27	(1)	31	52	—	83
Income tax expense (benefit)[(a)]	799	78	(147)	730	(282)	—	448
Segment income (loss)[(b)(c)(d)(e)]	3,058	274	9	3,341	(694)	—	2,647
Add back noncontrolling interest component							(22)
Income from discontinued operations, net of tax							19
Net income							$ 2,644
Capital investments expenditures and acquisitions	$ 8,086	$ 1,133	$ 193	$ 9,412	$ 256	$ —	$ 9,668
Segment assets	125,364	12,361	4,204	141,929	3,275	188	145,392

(a) All segments include adjustments to the December 31, 2017 estimate of the income tax effects of the Tax Act. Electric Utilities and Infrastructure includes a $24 million expense, Gas Utilities and Infrastructure includes a $1 million expense, Commercial Renewables includes a $3 million benefit and Other includes a $2 million benefit. See Note 23 for additional information.

(b) Electric Utilities and Infrastructure includes after-tax regulatory and legislative impairment charges of $202 million related to rate case orders, settlements or other actions of regulators or legislative bodies and an after-tax impairment charge of $46 million related to the Citrus County CC at Duke Energy Florida. See Note 4 for additional information.

(c) Gas Utilities and Infrastructure includes an after-tax impairment charge of $42 million for the investment in Constitution. See Note 12 for additional information.

(d) Commercial Renewables includes an impairment charge of $91 million, net of $2 million Noncontrolling interests, related to goodwill. See Note 11 for additional information.

(e) Other includes $65 million of after-tax costs to achieve the Piedmont merger, $144 million of after-tax severance charges related to a companywide initiative and an $82 million after-tax loss on the sale of the retired Beckjord Generating Station described below. For additional information, see Note 2 for the Piedmont Merger and Note 20 for severance charges.

In February 2018, Duke Energy sold Beckjord, a nonregulated facility retired during 2014, and recorded a pretax loss of $106 million within (Losses) Gains on Sales of Other Assets and Other, net and $1 million within Operation, maintenance and other on Duke Energy's Consolidated Statements of Operations for the year ended December 31, 2018. The sale included the transfer of coal ash basins and other real property and indemnification from any and all potential future claims related to the property, whether arising under environmental laws or otherwise.

	Year Ended December 31, 2017						
(in millions)	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Commercial Renewables	Total Reportable Segments	Other	Eliminations	Total
Unaffiliated Revenues	$ 21,300	$ 1,743	$ 460	$ 23,503	$ 62	$ —	$ 23,565
Intersegment Revenues	31	93	—	124	76	(200)	—
Total Revenues	$ 21,331	$ 1,836	$ 460	$ 23,627	$ 138	$ (200)	$ 23,565
Interest Expense	$ 1,240	$ 105	$ 87	$ 1,432	$ 574	$ (20)	$ 1,986
Depreciation and amortization	3,010	231	155	3,396	131	—	3,527
Equity in earnings (losses) of unconsolidated affiliates	5	62	(5)	62	57	—	119
Income tax expense (benefit)[a]	1,355	116	(628)	843	353	—	1,196
Segment income (loss)[b][c][d]	3,210	319	441	3,970	(905)	—	3,065
Add back noncontrolling interest component							5
Loss from discontinued operations, net of tax							(6)
Net income							$ 3,064
Capital investments expenditures and acquisitions	$ 7,024	$ 907	$ 92	$ 8,023	$ 175	$ —	$ 8,198
Segment assets	119,423	11,462	4,156	135,041	2,685	188	137,914

(a) All segments include impacts of the Tax Act. Electric Utilities and Infrastructure includes a $231 million benefit, Gas Utilities and Infrastructure includes a $26 million benefit, Commercial Renewables includes a $442 million benefit and Other includes charges of $597 million.
(b) Electric Utilities and Infrastructure includes after-tax regulatory settlement charges of $98 million. See Note 4 for additional information.
(c) Commercial Renewables includes after-tax impairment charges of $74 million related to certain wind projects and the Energy Management Solutions reporting unit. See Notes 10 and 11 for additional information.
(d) Other includes $64 million of after-tax costs to achieve the Piedmont merger. See Note 2 for additional information.

	Year Ended December 31, 2016						
(in millions)	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Commercial Renewables	Total Reportable Segments	Other	Eliminations	Total
Unaffiliated Revenues	$ 21,336	$ 875	$ 484	$ 22,695	$ 48	$ —	$ 22,743
Intersegment Revenues	30	26	—	56	69	(125)	—
Total Revenues	$ 21,366	$ 901	$ 484	$ 22,751	$ 117	$ (125)	$ 22,743
Interest Expense	$ 1,136	$ 46	$ 53	$ 1,235	$ 693	$ (12)	$ 1,916
Depreciation and amortization	2,897	115	130	3,142	152	—	3,294
Equity in earnings (losses) of unconsolidated affiliates[a]	5	19	(82)	(58)	43	—	(15)
Income tax expense (benefit)	1,672	90	(160)	1,602	(446)	—	1,156
Segment income (loss)[b][c]	3,040	152	23	3,215	(645)	1	2,571
Add back noncontrolling interest component							7
Loss from discontinued operations, net of tax[d]							(408)
Net income							$ 2,170
Capital investments expenditures and acquisitions[e]	$ 6,649	$ 5,519	$ 857	$ 13,025	$ 190	$ —	$ 13,215
Segment assets	114,993	10,760	4,377	130,130	2,443	188	132,761

(a) Commercial Renewables includes a pretax impairment charge of $71 million. See Note 12 for additional information.
(b) Other includes $329 million of after-tax costs to achieve mergers. See Note 2 for additional information on costs related to the Piedmont merger.
(c) Other includes after-tax charges of $57 million related to cost savings initiatives. See Note 20 for further information.
(d) Includes a loss on sale of the International Disposal Group. Refer to Note 2 for further information.
(e) Other includes $26 million of capital investment expenditures related to the International Disposal Group. Gas Utilities and Infrastructure includes the Piedmont acquisition of $5 billion. See Note 2 for more information on the Piedmont acquisition.

Geographical Information

All assets and revenues from continuing operations are within the U.S.

Major Customers

For the year ended December 31, 2018, revenues from one customer of Duke Energy Progress are $633 million. Duke Energy Progress has one reportable segment, Electric Utilities and Infrastructure. No other Subsidiary Registrant has an individual customer representing more than 10 percent of its revenues.

Products and Services

The following table summarizes revenues of the reportable segments by type.

(in millions)	Retail Electric	Wholesale Electric	Retail Natural Gas	Other	Total Revenues
2018					
Electric Utilities and Infrastructure	**$ 19,013**	**$ 2,345**	**$ —**	**$ 915**	**$ 22,273**
Gas Utilities and Infrastructure	**—**	**—**	**1,817**	**64**	**1,881**
Commercial Renewables	**—**	**375**	**—**	**102**	**477**
Total Reportable Segments	**$ 19,013**	**$ 2,720**	**$ 1,817**	**$ 1,081**	**$ 24,631**
2017					
Electric Utilities and Infrastructure	$ 18,177	$ 2,104	$ —	$ 1,050	$ 21,331
Gas Utilities and Infrastructure	—	—	1,732	104	1,836
Commercial Renewables	—	375	—	85	460
Total Reportable Segments	$ 18,177	$ 2,479	$ 1,732	$ 1,239	$ 23,627
2016					
Electric Utilities and Infrastructure	$ 18,338	$ 2,095	$ —	$ 933	$ 21,366
Gas Utilities and Infrastructure	—	—	871	30	901
Commercial Renewables	—	303	—	181	484
Total Reportable Segments	$ 18,338	$ 2,398	$ 871	$ 1,144	$ 22,751

Duke Energy Ohio

Duke Energy Ohio has two reportable segments, Electric Utilities and Infrastructure and Gas Utilities and Infrastructure.

Electric Utilities and Infrastructure transmits and distributes electricity in portions of Ohio and generates, distributes and sells electricity in portions of Northern Kentucky. Gas Utilities and Infrastructure transports and sells natural gas in portions of Ohio and Northern Kentucky. Both reportable segments conduct operations primarily through Duke Energy Ohio and its wholly owned subsidiary, Duke Energy Kentucky.

The remainder of Duke Energy Ohio's operations is presented as Other. In December 2018, the PUCO approved an order which allows the recovery or credit of revenues and expenses related to Duke Energy Ohio's contractual arrangement to buy power from OVEC power plants. Due to the change in regulatory treatment of these amounts, OVEC revenues and expenses are now reflected in the Electric Utilities and Infrastructure segment. Previously, OVEC revenues and expense were included in Other. These amounts are deemed immaterial for Duke Energy Ohio. Therefore, no prior period amounts were restated. See Note 4 for additional information on the PUCO order.

All Duke Energy Ohio assets and revenues from continuing operations are within the U.S.

(in millions)	Year Ended December 31, 2018				
	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Total Reportable Segments	Other	Total
Total revenues	$ 1,450	$ 506	$ 1,956	$ 1	$ 1,957
Interest expense	$ 67	$ 24	$ 91	$ 1	$ 92
Depreciation and amortization	183	85	268	—	268
Income tax expense (benefit)	47	24	71	(28)	43
Segment income (loss)/Net income[(a)]	186	93	279	(103)	176
Capital expenditures	$ 655	$ 172	$ 827	$ —	$ 827
Segment assets	5,643	2,874	8,517	38	8,555

(a) Other includes the loss on the sale of Beckjord, see discussion above.

(in millions)	Year Ended December 31, 2017					
	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Total Reportable Segments	Other	Eliminations	Total
Total revenues	$ 1,373	$ 508	$ 1,881	$ 42	$ —	$ 1,923
Interest expense	$ 62	$ 28	$ 90	$ 1	$ —	$ 91
Depreciation and amortization	178	83	261	—	—	261
Income tax expense (benefit)	40	39	79	(20)	—	59
Segment income (loss)	138	85	223	(30)	—	193
Loss from discontinued operations, net of tax						(1)
Net income						$ 192
Capital expenditures	$ 491	$ 195	$ 686	$ —	$ —	$ 686
Segment assets	5,066	2,758	7,824	66	(15)	7,875

(in millions)	Year Ended December 31, 2016					
	Electric Utilities and Infrastructure	Gas Utilities and Infrastructure	Total Reportable Segments	Other	Eliminations	Total
Total revenues	$ 1,410	$ 503	$ 1,913	$ 31	$ —	$ 1,944
Interest expense	$ 58	$ 27	$ 85	$ 1	$ —	$ 86
Depreciation and amortization	151	80	231	2	—	233
Income tax expense (benefit)	55	44	99	(21)	—	78
Segment income (loss)	154	77	231	(39)	—	192
Income from discontinued operations, net of tax						36
Net income						$ 228
Capital expenditures	$ 322	$ 154	$ 476	$ —	$ —	$ 476
Segment assets	4,782	2,696	7,478	62	(12)	7,528

4. REGULATORY MATTERS

REGULATORY ASSETS AND LIABILITIES

The Duke Energy Registrants record regulatory assets and liabilities that result from the ratemaking process. See Note 1 for further information.

The following tables present the regulatory assets and liabilities recorded on the Consolidated Balance Sheets of Duke Energy and Progress Energy. See separate tables below for balances by individual registrant.

	Duke Energy		Progress Energy	
	December 31,		December 31,	
(in millions)	2018	2017	2018	2017
Regulatory Assets				
AROs – coal ash	$ 4,255	$ 4,025	$ 2,061	$ 1,984
AROs – nuclear and other	772	852	601	655
Accrued pension and OPEB	2,654	2,249	1,074	906
Retired generation facilities	445	480	367	386
Debt fair value adjustment	1,099	1,197	—	—
Deferred asset – Lee COLA	383	—	—	—
Storm cost deferrals	1,117	531	953	526
Nuclear asset securitized balance, net	1,093	1,142	1,093	1,142
Hedge costs deferrals	204	234	74	94
Derivatives – natural gas supply contracts	141	142	—	—
Demand side management (DSM)/Energy efficiency (EE)	449	530	256	281
Grid modernization	31	39	—	—
Vacation accrual	213	213	41	42
Deferred fuel and purchased power	838	507	600	349
Nuclear deferral	133	119	46	35
Post-in-service carrying costs (PISCC) and deferred operating expenses	320	366	36	38
Transmission expansion obligation	39	46	—	—
Manufactured gas plant (MGP)	99	91	—	—
Advanced metering infrastructure (AMI)	367	362	127	150
NCEMPA deferrals	50	53	50	53
East Bend deferrals	47	45	—	—
Deferred pipeline integrity costs	65	54	—	—
Amounts due from customers	24	64	—	—
Other	784	538	322	110
Total regulatory assets	15,622	13,879	7,701	6,751
Less: current portion	2,005	1,437	1,137	741
Total noncurrent regulatory assets	$ 13,617	$ 12,442	$ 6,564	$ 6,010
Regulatory Liabilities				
Costs of removal	$ 5,421	$ 5,968	$ 2,135	$ 2,537
AROs – nuclear and other	538	806	—	—
Net regulatory liability related to income taxes	8,058	8,113	2,710	2,802
Amounts to be refunded to customers	34	10	—	—
Storm reserve	—	20	—	—
Accrued pension and OPEB	301	146	149	—
Deferred fuel and purchased power	16	47	16	1
Other	1,064	622	319	179
Total regulatory liabilities	15,432	15,732	5,329	5,519
Less: current portion	598	402	280	213
Total noncurrent regulatory liabilities	$ 14,834	$ 15,330	$ 5,049	$ 5,306

Descriptions of regulatory assets and liabilities summarized in the tables above and below follow. See tables below for recovery and amortization periods at the separate registrants.

AROs – coal ash. Represents deferred depreciation and accretion related to the legal obligation to close ash basins. The costs are deferred until recovery treatment has been determined. See Notes 1 and 9 for additional information.

AROs – nuclear and other. Represents regulatory assets or liabilities, including deferred depreciation and accretion, related to legal obligations associated with the future retirement of property, plant and equipment, excluding amounts related to coal ash. The AROs relate primarily to decommissioning nuclear power facilities. The amounts also include certain deferred gains and losses on NDTF investments. See Notes 1 and 9 for additional information.

Accrued pension and OPEB. Accrued pension and OPEB represent regulatory assets and liabilities related to each of the Duke Energy Registrants' respective shares of unrecognized actuarial gains and losses and unrecognized prior service cost and credit attributable to Duke Energy's pension plans and OPEB plans. The regulatory asset or liability is amortized with the recognition of actuarial gains and losses and prior service cost and credit to net periodic benefit costs for pension and OPEB plans. The accrued pension and OPEB regulatory asset is expected to be recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.

Retired generation facilities. Represents amounts to be recovered for facilities that have been retired and are probable of recovery.

Debt fair value adjustment. Purchase accounting adjustments recorded to state the carrying value of Progress Energy and Piedmont at fair value in connection with the 2012 and 2016 mergers, respectively. Amount is amortized over the life of the related debt.

Net regulatory asset or liability related to income taxes. Amounts for all registrants include regulatory liabilities related primarily to impacts from the Tax Act. See Note 23 for additional information. Amounts have no immediate impact on rate base as regulatory assets are offset by deferred tax liabilities.

Deferred asset – Lee COLA. Represents deferred costs incurred for the canceled Lee nuclear project.

Storm cost deferrals. Represents deferred incremental costs incurred related to extraordinary weather-related events.

Nuclear asset securitized balance, net. Represents the balance associated with Crystal River Unit 3 retirement approved for recovery by the FPSC on September 15, 2015, and the upfront financing costs securitized in 2016 with issuance of the associated bonds. The regulatory asset balance is net of the AFUDC equity portion.

Hedge costs and other deferrals. Amounts relate to unrealized gains and losses on derivatives recorded as a regulatory asset or liability, respectively, until the contracts are settled.

Derivatives – natural gas supply contracts. Represents costs for certain long-dated, fixed quantity forward gas supply contracts, which are recoverable through PGA clauses.

DSM/EE. Deferred costs related to various DSM and EE programs recoverable through various mechanisms.

Grid modernization. Amounts represent deferred depreciation and operating expenses as well as carrying costs on the portion of capital expenditures placed in service but not yet reflected in retail rates as plant in service.

Vacation accrual. Represents.vacation entitlement, which is generally recovered in the following year.

Deferred fuel and purchased power. Represents certain energy-related costs that are recoverable or refundable as approved by the applicable regulatory body.

Nuclear deferral. Includes amounts related to levelizing nuclear plant outage costs, which allows for the recognition of nuclear outage expenses over the refueling cycle rather than when the outage occurs, resulting in the deferral of operations and maintenance costs associated with refueling.

Post-in-service carrying costs and deferred operating expenses. Represents deferred depreciation and operating expenses as well as carrying costs on the portion of capital expenditures placed in service but not yet reflected in retail rates as plant in service.

Transmission expansion obligation. Represents transmission expansion obligations related to Duke Energy Ohio's withdrawal from Midcontinent Independent System Operator, Inc. (MISO).

MGP. Represents remediation costs incurred at former MGP sites and the deferral of costs to be incurred at Duke Energy Ohio's East End and West End sites.

AMI. Represents deferred costs related to the installation of AMI meters and remaining net book value of non-AMI meters to be replaced at Duke Energy Carolinas, net book value of existing meters at Duke Energy Florida, Duke Energy Progress and Duke Energy Ohio and expected future recovery of net book value of electromechanical meters that have been replaced with AMI meters at Duke Energy Indiana.

NCEMPA deferrals. Represents retail allocated cost deferrals and returns associated with the additional ownership interest in assets acquired from NCEMPA in 2015.

East Bend deferrals. Represents both deferred operating expenses and deferred depreciation as well as carrying costs on the portion of East Bend that was acquired from Dayton Power and Light and that had been previously operated as a jointly owned facility.

Deferred pipeline integrity costs. Represents pipeline integrity management costs in compliance with federal regulations recovered through a rider mechanism.

Amounts due from customers. Relates primarily to margin decoupling and IMR recovery mechanisms.

Costs of removal. Represents funds received from customers to cover the future removal of property, plant and equipment from retired or abandoned sites as property is retired. Also includes certain deferred gains on NDTF investments.

Amounts to be refunded to customers. Represents required rate reductions to retail customers by the applicable regulatory body.

Storm reserve. Amounts are used to offset future incurred costs for named storms as approved by regulatory commissions.

RESTRICTIONS ON THE ABILITY OF CERTAIN SUBSIDIARIES TO MAKE DIVIDENDS, ADVANCES AND LOANS TO DUKE ENERGY

As a condition to the approval of merger transactions, the NCUC, PSCSC, PUCO, KPSC and IURC imposed conditions on the ability of Duke Energy Carolinas, Duke Energy Progress, Duke Energy Ohio, Duke Energy Kentucky, Duke Energy Indiana and Piedmont to transfer funds to Duke Energy through loans or advances, as well as restricted amounts available to pay dividends to Duke Energy. Certain subsidiaries may transfer funds to the parent by obtaining approval of the respective state regulatory commissions. These conditions imposed restrictions on the ability of the public utility subsidiaries to pay cash dividends as discussed below.

Duke Energy Progress and Duke Energy Florida also have restrictions imposed by their first mortgage bond indentures, which in certain circumstances, limit their ability to make cash dividends or distributions on common stock. Amounts restricted as a result of these provisions were not material at December 31, 2018.

Additionally, certain other subsidiaries of Duke Energy have restrictions on their ability to dividend, loan or advance funds to Duke Energy due to specific legal or regulatory restrictions, including, but not limited to, minimum working capital and tangible net worth requirements.

The restrictions discussed below were not a material amount of Duke Energy's and Progress Energy's net assets at December 31, 2018.

Duke Energy Carolinas

Duke Energy Carolinas must limit cumulative distributions subsequent to mergers to (i) the amount of retained earnings on the day prior to the closing of the mergers, plus (ii) any future earnings recorded.

Duke Energy Progress

Duke Energy Progress must limit cumulative distributions subsequent to the mergers between Duke Energy and Progress Energy and Duke Energy and Piedmont to (i) the amount of retained earnings on the day prior to the closing of the respective mergers, plus (ii) any future earnings recorded.

Duke Energy Ohio

Duke Energy Ohio will not declare and pay dividends out of capital or unearned surplus without the prior authorization of the PUCO. Duke Energy Ohio received FERC and PUCO approval to pay dividends from its equity accounts that are reflective of the amount that it would have in its retained earnings account had push-down accounting for the Cinergy merger not been applied to Duke Energy Ohio’s balance sheet. The conditions include a commitment from Duke Energy Ohio that equity, adjusted to remove the impacts of push-down accounting, will not fall below 30 percent of total capital.

Duke Energy Kentucky is required to pay dividends solely out of retained earnings and to maintain a minimum of 35 percent equity in its capital structure.

Duke Energy Indiana

Duke Energy Indiana must limit cumulative distributions subsequent to the merger between Duke Energy and Cinergy to (i) the amount of retained earnings on the day prior to the closing of the merger, plus (ii) any future earnings recorded. In addition, Duke Energy Indiana will not declare and pay dividends out of capital or unearned surplus without prior authorization of the IURC.

Piedmont

Piedmont must limit cumulative distributions subsequent to the acquisition of Piedmont by Duke Energy to (i) the amount of retained earnings on the day prior to the closing of the merger, plus (ii) any future earnings recorded.

RATE-RELATED INFORMATION

The NCUC, PSCSC, FPSC, IURC, PUCO, TPUC and KPSC approve rates for retail electric and natural gas services within their states. The FERC approves rates for electric sales to wholesale customers served under cost-based rates (excluding Ohio and Indiana), as well as sales of transmission service. The FERC also regulates certification and siting of new interstate natural gas pipeline projects.

Duke Energy Carolinas and Duke Energy Progress

Grid Improvement – South Carolina

On June 22, 2018, Duke Energy Carolinas and Duke Energy Progress filed a joint petition with the PSCSC seeking an accounting order authorizing deferral of certain costs incurred in connection with grid reliability, resiliency and modernization work that is being performed under the companies’ grid improvement initiative. On October 3, 2018, the PSCSC granted Duke Energy Carolinas' and Duke Energy Progress' joint petition, which authorizes the deferral of these costs until the rate effective dates of each Company’s next general rate case.

Hurricane Florence, Hurricane Michael and Winter Storm Diego

In September 2018, Hurricane Florence made landfall and inflicted severe damage to the Duke Energy Carolinas and Duke Energy Progress territories in North Carolina and South Carolina. Approximately 2 million customers were impacted. The companies incurred approximately $500 million in incremental operation and maintenance expenses ($70 million and $430 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) and approximately $90 million in capital costs ($5 million and $85 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) which are included in Net property, plant and equipment on the Consolidated Balance Sheets as of December 31, 2018, resulting from the hurricane restoration efforts. Most of the operation and maintenance expenses are deferred in Regulatory assets within Other Noncurrent Assets on the Consolidated Balance Sheets as of December 31, 2018. The balance of operation and maintenance expenses are included in Operation, maintenance and other on the Consolidated Statements of Operations for the year ended December 31, 2018.

In October 2018, the remnants of Hurricane Michael inflicted severe damage to the Duke Energy Carolinas and Duke Energy Progress territories in North Carolina and South Carolina. Approximately 1 million customers were impacted. The companies incurred approximately $100 million in incremental operation and maintenance expenses ($75 million and $25 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) and approximately $21 million in capital costs ($12 million and $9 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) which are included in Net property, plant and equipment on the Consolidated Balance Sheets as of December 31, 2018, resulting from the hurricane restoration efforts. Most of the operation and maintenance expenses are deferred in Regulatory assets within Other Noncurrent Assets on the Consolidated Balance Sheets as of December 31, 2018. The balance of operation and maintenance expenses are included in Operation, maintenance and other on the Consolidated Statements of Operations for the year ended December 31, 2018.

In December 2018, Winter Storm Diego inflicted severe damage to the Duke Energy Carolinas and Duke Energy Progress territories in North Carolina and South Carolina. Approximately 800,000 customers were impacted. The companies incurred approximately $85 million in incremental operation and maintenance expenses ($60 million and $25 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) and approximately $9 million in capital costs ($7 million and $2 million for Duke Energy Carolinas and Duke Energy Progress, respectively,) which are included in Net property, plant and equipment on the Consolidated Balance Sheets as of December 31, 2018, resulting from the winter storm restoration efforts. Most of the operation and maintenance expenses are deferred in Regulatory assets within Other Noncurrent Assets on the Consolidated Balance Sheets as of December 31, 2018. The balance of operation and maintenance expenses are included in Operation, maintenance and other on the Consolidated Statements of Operations for the year ended December 31, 2018.

On December 21, 2018, Duke Energy Carolinas and Duke Energy Progress filed with the NCUC petitions for approval to defer the incremental costs incurred to a regulatory asset for recovery in the next base rate case. The NCUC issued an order requesting comments on the deferral positions. Duke Energy Carolinas and Duke Energy Progress cannot predict the outcome of this matter. Duke Energy Progress filed a similar request with the PSCSC on January 11, 2019, which also included a request for the continuation of prior deferrals requested for ice storms and Hurricane Matthew, and on January 30, 2019, the PSCSC issued a directive approving the deferral request.

North Carolina State Corporate Income Tax

On December 12, 2018, Duke Energy Carolinas and Duke Energy Progress filed requests to reduce their rates effective January 1, 2019, based on a reduction in North Carolina’s corporate income tax rate from 3 to 2.5 percent, as enacted by the General Assembly in Session Law 2017-57, which became law on June 28, 2017, with an effective date of January 1, 2019. On December 17, 2018, the NCUC issued orders approving the Duke Energy Carolinas and Duke Energy Progress rate decrements.

Duke Energy Carolinas

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Duke Energy Carolinas' Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017	Earns/Pays a Return	Recovery/Refund Period Ends
Regulatory Assets[a]				
AROs – coal ash	**$ 1,725**	$ 1,645	(i)	(b)
Accrued pension and OPEB	**581**	410		(j)
Retired generation facilities[c]	**21**	29	X	2023
Deferred Asset – Lee COLA	**383**	—		(b)
Storm cost deferrals	**160**	—	X	(b)
Hedge costs deferrals[c]	**101**	109	X	2041
DSM/EE	**169**	210	(h)	(h)
Vacation accrual	**78**	83	(e)	2019
Deferred fuel and purchased power	**196**	140	(f)	2020
Nuclear deferral	**87**	84		2020
PISCC[c]	**34**	35	X	(b)
AMI	**176**	185	X	(b)
Other	**266**	222		(b)
Total regulatory assets	**3,977**	3,152		
Less: current portion	**520**	299		
Total noncurrent regulatory assets	**$ 3,457**	$ 2,853		
Regulatory Liabilities[a]				
Costs of removal[c]	**$ 1,968**	$ 2,054	X	(g)
ARO – nuclear and other	**538**	806		(b)
Net regulatory liability related to income taxes[d]	**3,082**	3,028		(b)
Storm reserve[c]	**—**	20		(b)
Accrued pension and OPEB	**38**	44		(j)
Deferred fuel and purchased power	**—**	46	(f)	2020
Other	**572**	359		(b)
Total regulatory liabilities	**6,198**	6,357		
Less: current portion	**199**	126		
Total noncurrent regulatory liabilities	**$ 5,999**	$ 6,231		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Included in rate base.
(d) Includes regulatory liabilities related to the change in the federal tax rate as a result of the Tax Act and the change in the North Carolina tax rate, both discussed in Note 23.
(e) Earns a return on outstanding balance in North Carolina.
(f) Pays interest on over-recovered costs in North Carolina. Includes certain purchased power costs in North Carolina and South Carolina and costs of distributed energy in South Carolina.
(g) Recovered over the life of the associated assets.
(h) Includes incentives on DSM/EE investments and is recovered through an annual rider mechanism.
(i) Earns a debt and equity return on coal ash expenditures for North Carolina and South Carolina retail customers as permitted by various regulatory orders.
(j) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.

2017 North Carolina Rate Case

On August 25, 2017, Duke Energy Carolinas filed an application with the NCUC for a rate increase for retail customers of approximately $647 million, which represented an approximate 13.6 percent increase in annual base revenues. The rate increase was driven by capital investments subsequent to the previous base rate case, including the W.S. Lee CC discussed below, grid improvement projects, AMI, investments in customer service technologies, costs of complying with CCR regulations and the Coal Ash Act and recovery of costs related to licensing and development of the Lee Nuclear Station discussed below.

On February 28, 2018, Duke Energy Carolinas and the North Carolina Public Staff (Public Staff) filed an Agreement and Stipulation of Partial Settlement resolving certain portions of the proceeding. Terms of the settlement included a return on equity of 9.9 percent and a capital structure of 52 percent equity and 48 percent debt. As a result of the settlement, Duke Energy Carolinas recorded a pretax charge of approximately $4 million to Operation, maintenance and other on the Consolidated Statements of Operations.

On June 1, 2018, Duke Energy Carolinas and certain intervenors filed a Pilot Grid Rider Agreement and Stipulation (Grid Rider Stipulation) in which the parties agreed to the proposal Duke Energy Carolinas introduced in a post-hearing brief on April 27, 2018, along with additional commitments by Duke Energy Carolinas. Also on June 1, 2018, Duke Energy Carolinas and the Commercial Group filed a Partial Stipulation and Settlement Agreement to be considered in conjunction with the Stipulation.

Components of the Grid Rider Stipulation included:

- Duke Energy Carolinas would recover grid improvement costs through a pilot, three-year Grid Rider except for costs related to targeted undergrounding of power lines, cable and conduit replacement, and power pole replacement;
- Excluded costs were to be deferred with a return until Duke Energy Carolinas’ next base rate case proceeding; and
- Costs incurred during the three-year pilot, both rider recoverable and deferred, were subject to a 4.5 percent cumulative cap of total annual electric service revenue.

On June 22, 2018, the NCUC issued an order approving the Stipulation of Partial Settlement and requiring a revenue reduction. The order also included the following material components not covered in the Stipulation:

- Recovery of $554 million of deferred coal ash basin closure costs over a five-year period with a return at Duke Energy Carolinas' WACC;
- Assessment of a $70 million management penalty ratably over a five-year period by reducing the annual recovery of the deferred coal ash costs;
- Denial of Duke Energy Carolinas' request for recovery of future estimated ongoing annual coal ash costs of $201 million with approval to defer such costs with a return at Duke Energy Carolinas' WACC, to be considered for recovery in the next rate case;
- Inclusion in rates of costs related to the W.S. Lee CC, two new solar facilities, and AMI deployment as requested;
- Recovery of Lee Nuclear Station licensing and development cost of $347 million over a 12-year period, but denial of a return on the deferred balance of costs;
- Reduction in revenue related to lower income tax expense resulting from the Tax Act, and a requirement to maintain all excess deferred income tax (EDIT) resulting from the Tax Act in a regulatory liability account pending flow back to customers as approved by the commission at the earlier of three years or Duke Energy Carolinas’ next general rate case proceeding; and
- Denial of the proposed Grid Rider Stipulation related to grid improvement costs and denial of deferral accounting treatment of the costs at this time. Duke Energy Carolinas may petition for deferral of grid modernization costs outside of a general rate case proceeding if it can show financial hardship or a stipulation that includes greater consensus among intervening parties on costs being classified as grid modernization.

As a result of the Order, Duke Energy Carolinas recorded a pretax charge of approximately $150 million to Impairment charges and Operation, maintenance and other on the Consolidated Statements of Operations. The charge is primarily related to the denial of a return on the Lee Nuclear Project and for previously recognized return impacted by the coal ash management penalty described above. On July 27, 2018, NCUC approved Duke Energy Carolinas' compliance filing. As a result, revised customer rates were effective on August 1, 2018.

On July 20, 2018, the North Carolina Attorney General filed a Notice of Appeal to the North Carolina Supreme Court from the June 22, 2018, Order Accepting Stipulation, Deciding Contested Issues and Requiring Revenue Reduction issued by the NCUC. The Attorney General contends the commission’s order should be reversed and remanded, as it is in excess of the commission’s statutory authority; affected by errors of law; unsupported by competent, material and substantial evidence in view of the entire record as submitted; and arbitrary or capricious. The Sierra Club, North Carolina Sustainable Energy Association, North Carolina Justice Center, North Carolina Housing Coalition, Natural Resource Defense Council and Southern Alliance for Clean Energy have also filed Notices of Appeal to the North Carolina Supreme Court from the June 22, 2018, Order Accepting Stipulation, Deciding Contested Issues and Requiring Revenue Reduction. On August 8, 2018, the Public Staff filed a Notice of Cross Appeal to the North Carolina Supreme Court from the June 22, 2018, Order Accepting Stipulation, Deciding Contested Issues and Requiring Revenue Reduction issued by the NCUC. The Public Staff contends the commission’s order should be reversed and remanded, as it is affected by errors of law, and is unsupported by substantial evidence with regard to the commission’s failure to consider substantial evidence of coal ash related environmental violations. On November 29, 2018, the North Carolina Attorney General's Office filed a motion with the North Carolina Supreme Court requesting the court consolidate the Duke Energy Carolinas and Duke Energy Progress appeals and enter an order adopting the parties’ proposed briefing schedule as set out in the filing. On November 29, 2018, the North Carolina Supreme Court adopted a schedule for briefing set forth in the motion to consolidate the Duke Energy Carolinas and Duke Energy Progress appeals. The Appellee response briefs are due July 29, 2019. Duke Energy Carolinas cannot predict the outcome of this matter.

2018 South Carolina Rate Case

On November 8, 2018, Duke Energy Carolinas filed an application with the PSCSC for a rate increase for retail customers of approximately $168 million, which represents an approximate 10.0 percent increase in retail revenues. The rate increase is driven by capital investments and environmental compliance progress made by Duke Energy Carolinas since its previous rate case, including the further implementation of Duke Energy Carolinas' generation modernization program, which consists of retiring, replacing and upgrading generation plants, investments in customer service technologies and continued investments in base work to maintain its transmission and distribution systems. The request includes net tax benefits resulting from the Tax Act of $66 million to reflect the change in ongoing tax expense, primarily from the reduction in the federal income tax rate from 35 to 21 percent, and $46 million to return EDIT resulting from the federal tax rate change and deferred revenues since January 2018 related to the change and benefits of $17 million from a reduction in North Carolina state income taxes allocable to South Carolina.

Duke Energy Carolinas also requested approval of its proposed Grid Improvement Plan, adjustments to its Prepaid Advantage Program and a variety of accounting orders related to ongoing costs for environmental compliance, including recovery over a five-year period of $242 million of deferred coal ash related compliance costs, grid investments between rate changes, incremental depreciation expense, a result of new depreciation rates from the depreciation study approved in the 2017 North Carolina Rate Case above, and the balance of development costs associated with the cancellation of the Lee Nuclear Project. Finally, Duke Energy Carolinas sought approval to establish a reserve and accrual for end of life nuclear costs for nuclear fuel and materials and supplies. An evidentiary hearing is scheduled to begin on March 21, 2019, and a decision and revised customer rates are expected by mid-2019. Duke Energy Carolinas cannot predict the outcome of this matter.

FERC Formula Rate Matter

On July 31, 2017, PMPA filed a complaint with FERC alleging that Duke Energy Carolinas misapplied the formula rate under the PPA between the parties by including in its rates amortization expense associated with regulatory assets and recorded in a certain account without FERC approval. On February 15, 2018, FERC issued an order ruling in favor of PMPA and ordered Duke Energy Carolinas to refund to PMPA all amounts improperly collected under the PPA. Duke Energy Carolinas has issued to PMPA and similarly situated wholesale customers refunds of approximately $25 million. FERC also set the matter for settlement and hearing. PMPA and other customers filed a protest to Duke Energy Carolinas' refund report claiming that the refunds are inadequate in that (1) Duke Energy Carolinas invoked the limitations periods in the contracts to limit the time period for which the refunds were paid and the customers disagree that this limitation applies, and (2) Duke Energy Carolinas refunded only amounts recovered through a certain account and the customers have asserted that the order applies to all regulatory assets. On July 3, 2018, FERC issued an order accepting Duke Energy Carolinas' refund report and ruling that these two claims are outside the scope of FERC's February order. The settlement agreements and revised formula rates for all parties to the proceeding were filed on December 28, 2018. Duke Energy Carolinas cannot predict the outcome of this matter.

W.S. Lee CC

On April 9, 2014, the PSCSC granted Duke Energy Carolinas and NCEMC a CECPCN for the construction and operation of a 750-megawatt (MW) combined-cycle natural gas-fired generating plant at Duke Energy Carolinas' existing William States Lee Generating Station in Anderson, South Carolina. Duke Energy Carolinas began construction in July 2015 and its share of the cost to build the facility was approximately $650 million, including AFUDC. Approximately $600 million is being recovered through base rate or deferral filings in North Carolina and South Carolina. The remaining amount will be included in future rate filings. The project commenced commercial operation on April 5, 2018. NCEMC owns approximately 13 percent of the project.

Lee Nuclear Station

In December 2007, Duke Energy Carolinas applied to the NRC for COLs for two Westinghouse AP1000 reactors for the proposed William States Lee III Nuclear Station to be located at a site in Cherokee County, South Carolina. The NCUC and PSCSC concurred with the prudency of Duke Energy Carolinas incurring certain project development and preconstruction costs through several separately issued orders, although full cost recovery is not guaranteed. In December 2016, the NRC issued a COL for each reactor. Duke Energy Carolinas is not required to build the nuclear reactors as a result of the COLs being issued.

The Duke Energy Carolinas 2017 North Carolina Rate Case filing discussed above included a request to cancel the development of the Lee Nuclear project, recover incurred licensing and development costs and maintain the license issued by the NRC as an option for potential future development. The cancellation request was due to the Westinghouse bankruptcy filing and other market activity. The NCUC Order issued on June 22, 2018, approved the cancellation of the Lee Nuclear Project, allowed Duke Energy Carolinas to continue to maintain the COLs, provided for recovery of the North Carolina retail allocation of project development costs, including AFUDC accrued through December 31, 2017, over 12 years and disallowed any return on the unamortized balance during the 12-year recovery period.

Given the repeal of certain sections of the Base Load Review Act in South Carolina combined with the cancellation of the project, Duke Energy Carolinas determined that it was no longer probable it would be allowed a return on its share of project development costs attributable to South Carolina. As a result, Duke Energy Carolinas recorded a pretax impairment in the second quarter of 2018 of $29 million within Impairment charges on the Consolidated Statements of Operations and Comprehensive Income.

South Carolina Petition

On June 22, 2018, Duke Energy Carolinas filed a petition with the PSCSC requesting an accounting order to defer certain costs incurred in connection with the addition of the W.S. Lee CC, the ongoing deployment of Duke Energy Carolinas new billing and Customer Information System and the addition of the Carolinas West Primary Distribution Control Center. This request totaling approximately $33 million was approved on July 25, 2018.

Sale of Hydroelectric (Hydro) Plants

In May 2018, Duke Energy Carolinas entered an agreement for the sale of five hydro plants with a combined 18.7-MW generation capacity in the Western Carolinas region to Northbrook Energy. The completion of the transaction is subject to approval from FERC for the four FERC-licensed plants, as well as other state regulatory agencies and is contingent upon regulatory approval from the NCUC and PSCSC to defer the total estimated loss on the sale of approximately $40 million. On July 5, 2018, Duke Energy Carolinas filed with NCUC for approval of the sale of the five hydro plants to Northbrook, to transfer the CPCNs for the four North Carolina hydro plants and to establish a regulatory asset for the North Carolina retail portion of the difference between sales proceeds and net book value. On September 4, 2018, the Public Staff filed comments supporting the CPCN transfer with conditions. On September 18, 2018, Duke Energy Carolinas filed reply comments opposing the Public Staff's proposed conditions. On November 29, 2018, the NCUC issued a procedural order and held an evidentiary hearing on this matter on February 5, 2019. On August 28, 2018, Duke Energy Carolinas filed with PSCSC its Application for Approval of Transfer and Sale of Hydroelectric Generation Facilities, Acceptance for Filing of a Power Purchase Agreement and an Accounting Order to Establish a Regulatory Asset. On September 10, 2018, the ORS provided a letter to the commission stating its position on the application and on September 18, 2018, Duke Energy Carolinas requested this matter be carried over to allow Duke Energy Carolinas time to discuss certain accounting issues with the ORS. On August 9, 2018, Duke Energy Carolinas and Northbrook filed a joint Application for Transfer of Licenses with the FERC. On December 27, 2018, the FERC issued its Order Approving Transfer of Licenses ("Order") for the four FERC-licensed hydro plants. On January 18, 2019, Duke Energy Carolinas and Northbrook Carolina Hydro II, LLC requested a six-month extension of time to comply with the requirement of the Order that Northbrook submit to FERC certified copies of all instruments of conveyance and signed acceptance sheets within 60 days of the date of the Order, given that compliance by the deadline set in the Order is not possible because the conveyance of the projects is contingent on the receipt of state regulatory approvals, which are not anticipated to be issued by February 25, 2019.

If commission approvals are not received, Duke Energy Carolinas can cancel the sales agreement and retain the hydro facilities. If commission approvals are received, the closing is expected to occur during the second quarter of 2019. After closing, Duke Energy Carolinas will purchase all the capacity and energy generated by these facilities at the avoided cost for five years through power purchase agreements. Duke Energy Carolinas cannot predict the outcome of this matter.

Duke Energy Progress

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Duke Energy Progress' Consolidated Balance Sheets.

	December 31,		Earns/Pays	Recovery/Refund
(in millions)	**2018**	**2017**	**a Return**	**Period Ends**
Regulatory Assets[a]				
AROs – coal ash	**$ 2,051**	$ 1,975	(h)	(b)
AROs – nuclear and other	**429**	359		(c)
Accrued pension and OPEB	**542**	430		(k)
Retired generation facilities	**148**	170	X	(b)
Storm cost deferrals[d]	**571**	150	X	(b)
Hedge costs deferrals	**54**	64		(b)
DSM/EE[e]	**235**	264	(i)	(i)
Vacation accrual	**41**	42		2019
Deferred fuel and purchased power	**397**	130	(f)	2020
Nuclear deferral	**46**	35		2020
PISCC and deferred operating expenses	**36**	38	X	2054
AMI	**67**	75		(b)
NCEMPA deferrals	**50**	53	(g)	2042
Other	**147**	74		(b)
Total regulatory assets	**4,814**	3,859		
Less: current portion	**703**	352		
Total noncurrent regulatory assets	**$ 4,111**	$ 3,507		
Regulatory Liabilities[a]				
Costs of removal	**$ 1,878**	$ 2,122	X	(j)
Accrued pension and OPEB	**93**	—		(k)
Net regulatory liability related to income taxes[l]	**1,863**	1,854		(b)
Deferred fuel and purchased power	**—**	1	(f)	2020
Other	**299**	161		(b)
Total regulatory liabilities	**4,133**	4,138		
Less: current portion	**178**	139		
Total noncurrent regulatory liabilities	**$ 3,955**	$ 3,999		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Recovery period for costs related to nuclear facilities runs through the decommissioning period of each unit.
(d) South Carolina storm costs are included in rate base.
(e) Included in rate base.
(f) Pays interest on over-recovered costs in North Carolina. Includes certain purchased power costs in North Carolina and South Carolina and costs of distributed energy in South Carolina.
(g) South Carolina retail allocated costs are earning a return.
(h) Earns a debt and equity return on coal ash expenditures for North Carolina and South Carolina retail customers as permitted by various regulatory orders.
(i) Includes incentives on DSM/EE investments and is recovered through an annual rider mechanism.
(j) Recovered over the life of the associated assets.
(k) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.
(l) Includes regulatory liabilities related to the change in the federal tax rate as a result of the Tax Act and the change in the North Carolina tax rate, both discussed in Note 23.

2017 North Carolina Rate Case

On June 1, 2017, Duke Energy Progress filed an application with the NCUC for a rate increase for retail customers of approximately $477 million, which represented an approximate 14.9 percent increase in annual base revenues. Subsequent to the filing, Duke Energy Progress adjusted the requested amount to $420 million, representing an approximate 13 percent increase. The rate increase is driven by capital investments subsequent to the previous base rate case, costs of complying with CCR regulations and the Coal Ash Act, costs relating to storm recovery, investments in customer service technologies and recovery of costs associated with renewable purchased power.

On December 16, 2016, Duke Energy Progress filed a petition with the NCUC requesting an accounting order to defer certain costs incurred in connection with response to Hurricane Matthew and other significant storms in 2016. The final estimate of incremental operation and maintenance and capital costs of $116 million was filed with the NCUC in September 2017. On July 10, 2017, the NCUC consolidated Duke Energy Progress' storm deferral request into the Duke Energy Progress rate case docket for decision.

On November 22, 2017, Duke Energy Progress and the Public Staff filed an Agreement and Stipulation of Partial Settlement resolving certain portions of the proceeding. Terms of the settlement included a return on equity of 9.9 percent and a capital structure of 52 percent equity and 48 percent debt. As a result of the settlement, in 2017 Duke Energy Progress recorded pretax charges totaling approximately $25 million to Impairment charges and Operation, maintenance and other on the Consolidated Statements of Operations, principally related to disallowances from rate base of certain projects at the Mayo and Sutton plants. On February 23, 2018, the NCUC issued an order approving the stipulation. The order also included the following material components not covered in the stipulation:

- Recovery of the remaining $234 million of deferred coal ash basin closure costs over a five-year period with a return at Duke Energy Progress' WACC, excluding $10 million of retail deferred coal ash basin costs related to ash hauling at Duke Energy Progress' Asheville Plant;
- Assessment of a $30 million management penalty ratably over a five-year period by reducing the annual recovery of the deferred coal ash costs;
- Denial of Duke Energy Progress' request for recovery of future estimated ongoing annual coal ash costs of $129 million with approval to defer such costs with a return at Duke Energy Progress' WACC, to be considered for recovery in the next rate case; and
- Approval to recover $51 million of the approximately $80 million deferred storm costs over a five-year period with amortization beginning in October 2016. The order did not allow the deferral of the associated capital costs or a return on the deferred balance during the deferral period.

The order also impacted certain amounts that were similarly recorded on Duke Energy Carolinas' Consolidated Balance Sheets. As a result of the order, Duke Energy Progress and Duke Energy Carolinas recorded pretax charges of $68 million and $14 million, respectively, in the first quarter of 2018 to Impairment charges, Operation, maintenance and other and Interest Expense on the Consolidated Statements of Operations. These charges primarily related to the coal ash basin disallowance and previously recognized return impacted by the coal ash management penalty and deferred storm cost adjustments. Revised customer rates became effective on March 16, 2018.

On May 15, 2018, the Public Staff filed a Notice of Cross Appeal to the North Carolina Supreme Court from the February 23, 2018, Order Accepting Stipulation, Deciding Contested Issues and Granting Partial Rate Increase issued by the NCUC. The Public Staff contend the commission’s order should be reversed and remanded, as it is affected by errors of law, and is unsupported by competent, material and substantial evidence in view of the entire record as submitted. The North Carolina Attorney General and Sierra Club have also filed Notices of Appeal to the North Carolina Supreme Court from the February 23, 2018, Order Accepting Stipulation, Deciding Contested Issues and Granting Partial Rate Increase. On November 29, 2018, the North Carolina Attorney General's Office filed a motion with the North Carolina Supreme Court requesting the court consolidate the Duke Energy Progress and Duke Energy Carolinas appeals and enter an order adopting the parties’ proposed briefing schedule as set out in the filing. On November 29, 2018, the North Carolina Supreme Court adopted a schedule for briefing set forth in the motion to consolidate the Duke Energy Progress and Duke Energy Carolinas appeals. The Appellee response briefs are due July 29, 2019. Duke Energy Progress cannot predict the outcome of this matter.

2016 South Carolina Rate Case

In December 2016, the PSCSC approved a rate case settlement agreement among the ORS, intervenors and Duke Energy Progress. Terms of the settlement agreement included an approximate $56 million increase in revenues over a two-year period. An increase of approximately $38 million in revenues was effective January 1, 2017, and an additional increase of approximately $19 million in revenues was effective January 1, 2018. Duke Energy Progress amortized approximately $19 million from the cost of removal reserve in 2017. Other settlement terms included a rate of return on equity of 10.1 percent, recovery of coal ash costs incurred from January 1, 2015, through June 30, 2016, over a 15-year period and ongoing deferral of allocated ash basin closure costs from July 1, 2016, until the next base rate case. The settlement also provides that Duke Energy Progress will not seek an increase in rates in South Carolina to occur prior to 2019, with limited exceptions.

2018 South Carolina Rate Case

On November 8, 2018, Duke Energy Progress filed an application with the PSCSC for a rate increase for retail customers of approximately $59 million, which represents an approximate 10.3 percent increase in annual base revenues. The rate increase is driven by capital investments and environmental compliance progress made by Duke Energy Progress since its previous rate case, including the further implementation of Duke Energy Progress' generation modernization program, which consists of retiring, replacing and upgrading generation plants, investments in customer service technologies and continued investments in base work to maintain its transmission and distribution systems. The request includes net tax benefits of $15 million consisting of a $12 million increase due to the expiration of EDITs related to reductions in North Carolina state income taxes allocable to South Carolina and decreases resulting from the Tax Act of $17 million to reflect the change in ongoing tax expense, primarily the reduction in the federal income tax rate from 35 to 21 percent, and $10 million to return EDIT resulting from the federal tax rate change and deferred revenues since January 2018 related to the change.

Duke Energy Progress also requested approval of its proposed Grid Improvement Plan, approval of a Prepaid Advantage Program and a variety of accounting orders related to ongoing costs for environmental compliance, including recovery over a five-year period of $51 million of deferred coal ash related compliance costs, AMI deployment, grid investments between rate changes and regulatory asset treatment related to the retirement of a generating plant located in Asheville, North Carolina. Finally, Duke Energy Progress sought approval to establish a reserve and accrual for end of life nuclear costs for materials and supplies and nuclear fuel. An evidentiary hearing is scheduled to begin on April 11, 2019, and a decision and revised customer rates are expected by mid-2019. Duke Energy Progress cannot predict the outcome of this matter.

Western Carolinas Modernization Plan

On November 4, 2015, Duke Energy Progress announced a Western Carolinas Modernization Plan, which included retirement of the existing Asheville coal-fired plant, the construction of two 280-MW combined-cycle natural gas plants having dual-fuel capability, with the option to build a third natural gas simple cycle unit in 2023 based upon the outcome of initiatives to reduce the region's power demand. The plan also included upgrades to existing transmission lines and substations, installation of solar generation and a pilot battery storage project. These investments will be made within the next seven years. Duke Energy Progress is also working with the local natural gas distribution company to upgrade an existing natural gas pipeline to serve the natural gas plant.

On March 28, 2016, the NCUC issued an order approving a CPCN for the new combined-cycle natural gas plants, but denying the CPCN for the contingent simple cycle unit without prejudice to Duke Energy Progress to refile for approval in the future. On March 28, 2018, Duke Energy Progress filed an annual progress report for the construction of the combined-cycle plants with the NCUC, with an estimated cost of $893 million. Site preparation activities for the combined-cycle plants are complete and construction of these plants began in 2017, with an expected in-service date in late 2019.

On October 8, 2018, Duke Energy Progress filed an application with the NCUC for a CPCN to construct the Hot Springs Microgrid Solar and Battery Storage Facility. On November 30, 2018, the NCUC issued an order scheduling hearings, requiring filing of testimony, establishing discovery guidelines and requiring public notice. On February 7, 2019, Duke Energy Progress made a joint filing with the Public Staff, which accepted the Public Staff's proposed conditions and requested that the NCUC cancel the evidentiary hearing. Duke Energy Progress cannot predict the outcome of this matter.

The carrying value of the 376-MW Asheville coal-fired plant, including associated ash basin closure costs, of $327 million and $385 million is included in Generation facilities to be retired, net on Duke Energy Progress' Consolidated Balance Sheets as of December 31, 2018, and 2017, respectively. Duke Energy Progress' request for a regulatory asset at the time of retirement with amortization over a 10-year period was approved by the NCUC on February 23, 2018.

Shearon Harris Nuclear Plant Expansion

In 2006, Duke Energy Progress selected a site at Harris to evaluate for possible future nuclear expansion. On February 19, 2008, Duke Energy Progress filed its COL application with the NRC for two Westinghouse AP1000 reactors at Harris, which the NRC docketed for review. On May 2, 2013, Duke Energy Progress filed a letter with the NRC requesting the NRC to suspend its review activities associated with the COL at the Harris site. The NCUC and PSCSC approved deferral of retail costs. Total deferred costs are approximately $43 million as of December 31, 2018, and are recorded in Regulatory assets on Duke Energy Progress' Consolidated Balance Sheets. On November 17, 2016, the FERC approved Duke Energy Progress' rate recovery request filing for the wholesale ratepayers' share of the abandonment costs, including a debt-only return to be recovered through revised formula rates and amortized over a 15-year period beginning May 1, 2014. As part of the settlement agreement for the 2017 North Carolina Rate Case discussed above, Duke Energy Progress will amortize the regulatory asset over an eight-year period. NCUC approved the settlement on February 23, 2018.

South Carolina Petitions

On June 22, 2018, Duke Energy Progress filed a petition with the PSCSC seeking an accounting order authorizing Duke Energy Progress to adopt new depreciation rates, effective March 16, 2018, that reflect the results of Duke Energy Progress' most recent depreciation study. Also on June 22, 2018, Duke Energy Progress filed a petition with the PSCSC requesting an accounting order to defer certain costs incurred in connection with the deployment of AMI, the ongoing deployment of Duke Energy Progress' new billing and Customer Information System, new depreciation rates and costs incurred in connection with the return of certain excess deferred state income taxes from North Carolina. These requests totaling approximately $20 million were approved on July 25, 2018.

FERC Form 1 Reporting Matter

On October 18, 2017, Fayetteville Public Works Commission (FPWC) filed with FERC a complaint against Duke Energy Progress. In the complaint, FPWC alleges that Duke Energy Progress' change in its method of reporting materials and supplies inventory on FERC Form 1 for 2015 constituted a change in accounting practice that Duke Energy Progress was not permitted to implement without first obtaining FERC approval. On April 23, 2018, FERC issued an order finding that Duke Energy Progress' new reporting methodology was not proper and required Duke Energy Progress to revise its FERC Form 1s beginning in 2014 and to issue refunds to formula rate customers. Duke Energy Progress estimates that these refunds will total approximately $14 million. On May 23, 2018, Duke Energy Progress filed a request for rehearing alleging that FERC's order is incorrect. Duke Energy Progress revised its FERC Form 1 filings in June 2018. On August 31, 2018, Duke Energy Progress filed with FERC a refund report memorializing its payment of refunds to FPWC. Duke Energy Progress cannot predict the outcome of this matter.

Tax Act

As ordered by the NCUC on October 5, 2018, Duke Energy Progress filed a proposal on October 25, 2018, to adjust rates to reflect the reduction in federal corporate income tax rate from 35 to 21 percent for taxable years beginning after December 31, 2017, as outlined in the Tax Act. Duke Energy Progress proposed that this rate decrement be effective for service rendered on and after December 1, 2018. On November 28, 2018, the NCUC approved the proposal to implement the change in the federal corporate income tax rate and effective December 1, 2018, Duke Energy Progress implemented the rate reduction. Also, as ordered by the NCUC on October 5, 2018, Duke Energy Progress shall continue to hold in a deferred regulatory liability account the difference between revenues billed under the prior federal corporate income tax rate and the federal corporate income tax rate resulting from the Tax Act for the period January 1, 2018 through November 30, 2018. The disposition of such regulatory liability may be considered in Duke Energy Progress' next general rate case proceeding or in three years, whichever is sooner. EDIT related to the corporate income tax rate reduction shall be held in a deferred tax regulatory liability account until they can be addressed for ratemaking purposes in the next general rate case proceeding or in three years, whichever is sooner.

Duke Energy Florida

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Duke Energy Florida's Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017	Earns/Pays a Return	Recovery/Refund Period Ends
Regulatory Assets[a]				
AROs – coal ash[c]	**$ 10**	$ 9		(b)
AROs – nuclear and other[c]	**172**	296		(b)
Accrued pension and OPEB[c]	**532**	476	X	(g)
Retired generation facilities[c]	**219**	216	X	(b)
Storm cost deferrals[c][h]	**382**	376	(e)	2021
Nuclear asset securitized balance, net	**1,093**	1,142		2036
Hedge costs deferrals	**20**	30		2020
DSM/EE[c]	**21**	17	X	2023
Deferred fuel and purchased power[c]	**203**	219	(f)	2020
AMI[c]	**60**	75	X	2032
Other	**176**	36	(d)	(b)
Total regulatory assets	**2,888**	2,892		
Less: current portion	**434**	389		
Total noncurrent regulatory assets	**$ 2,454**	$ 2,503		
Regulatory Liabilities[a]				
Costs of removal[c]	**$ 257**	$ 415	(d)	(b)
Net regulatory liability related to income taxes[c]	**847**	948		(b)
Accrued pension and OPEB	**56**	—	X	(g)
Deferred fuel and purchased power[c]	**16**	—	(f)	2020
Other	**20**	18	(d)	(b)
Total regulatory liabilities	**1,196**	1,381		
Less: current portion	**102**	74		
Total noncurrent regulatory liabilities	**$ 1,094**	$ 1,307		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Included in rate base.
(d) Certain costs earn a return.
(e) Earns a debt return/interest once collections begin.
(f) Earns commercial paper rate.
(g) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.
(h) Balance includes $165 million for Hurricane Michael. Duke Energy Florida expects to seek recovery of these costs in the first half of 2019.

Storm Restoration Cost Recovery

In September 2017, Duke Energy Florida's service territory suffered significant damage from Hurricane Irma, resulting in approximately 1 million customers experiencing outages. In the fourth quarter of 2017, Duke Energy Florida also incurred preparation costs related to Hurricane Nate. On December 28, 2017, Duke Energy Florida filed a petition with the FPSC to recover incremental storm restoration costs for Hurricane Irma and Hurricane Nate and to replenish the storm reserve. On February 6, 2018, the FPSC approved a stipulation that would apply tax savings resulting from the Tax Act toward storm costs effective January 2018 in lieu of implementing a storm surcharge. Storm costs are currently expected to be fully recovered by approximately mid-2021. On May 31, 2018, Duke Energy Florida filed a petition for approval of actual storm restoration costs and associated recovery process related to Hurricane Irma and Hurricane Nate. The petition is seeking the approval for the recovery in the amount of $510 million in actual recoverable storm restoration costs, including the replenishment of Duke Energy Florida's storm reserve of $132 million, and the process for recovering these recoverable storm costs. On August 20, 2018, the FPSC approved Duke Energy Florida's unopposed Motion for Continuance filed August 17, 2018, to allow for an evidentiary hearing in this matter. On January 28, 2019, Duke Energy Florida made a supplemental filing to reduce the total storm cost recovery from $510 million to $508 million. The commission has scheduled the hearing to begin on May 21, 2019. At December 31, 2018, Duke Energy Florida's Consolidated Balance Sheets included approximately $217 million of recoverable costs under the FPSC's storm rule in Regulatory assets within Current Assets and Other Noncurrent Assets related to storm recovery for Hurricane Irma and Hurricane Nate. Duke Energy Florida cannot predict the outcome of this matter.

In October 2018, Duke Energy Florida's service territory suffered damage when Hurricane Michael made landfall as a strong Category 4 hurricane with maximum sustained winds of 155 mph. The storm caused catastrophic damage from wind and storm surge, particularly from Panama City Beach to Mexico Beach, resulting in widespread outages and significant damage to transmission and distribution facilities across the central Florida Panhandle. In response to Hurricane Michael, Duke Energy Florida restored service to approximately 72,000 customers. Duke Energy Florida incurred approximately $200 million of costs resulting from the hurricane restoration efforts. Approximately $35 million of the costs are included in Net property, plant and equipment on the Consolidated Balance Sheets as of December 31, 2018. The remaining $165 million of costs represent recoverable costs under the FPSC's storm rule and Duke Energy Florida's Open Access Transmission Tariff formula rates and are included in Regulatory assets within Other Noncurrent Assets on the Consolidated Balance Sheets as of December 31, 2018. Duke Energy Florida anticipates filing a petition with the FPSC in the first half of 2019 to recover these costs, consistent with the provisions in the 2017 Settlement. Duke Energy Florida cannot predict the outcome of this matter.

Tax Act

Pursuant to Duke Energy Florida's 2017 Settlement, on May 31, 2018, Duke Energy Florida filed a petition related to the Tax Act, which included revenue requirement impacts of annual tax savings of $134 million and estimated annual amortization of EDIT of $67 million for a total of $201 million. Of this amount, $50 million would be offset by accelerated depreciation of Crystal River 4 and 5 coal units and an estimated $151 million would be offset by Hurricane Irma storm cost recovery as explained in the Storm Restoration Cost Recovery section above. On December 27, 2018, Duke Energy Florida filed actual EDIT balances and amortization based on its 2017 filed tax return. This increased the revenue requirement impact of the amortization of EDIT by $4 million, from $67 million to $71 million. On January 8, 2019, the FPSC approved a joint motion by Duke Energy Florida and the Office of Public Counsel resolving all stipulated positions. As part of that stipulation, Duke Energy Florida will seek a Private Letter Ruling from the IRS on its treatment of COR as mostly protected by tax normalization rules. If the IRS rules that COR is not protected by tax normalization rules, then Duke Energy Florida will make a final adjustment to the amortization of EDIT and an adjustment to the storm recovery amount retroactive to January 2018. Duke Energy Florida cannot predict the outcome of this matter.

Citrus County CC

On October 2, 2014, the FPSC granted Duke Energy Florida a Determination of Need for the construction of a 1,640-MW combined-cycle natural gas plant in Citrus County, Florida. At that time, the estimated cost of the facility was $1.5 billion, including AFUDC. On May 5, 2015, the Florida Department of Environmental Protection approved Duke Energy Florida's Site Certification Application and construction began in October 2015. On July 10, 2018, the FPSC approved Duke Energy Florida's request to include the annual revenue requirement of $200 million for the new Citrus County combined-cycle units in base rates. The first 820-MW power block came on-line on October 26, 2018, and the rate increase for this unit was effective in December 2018. The second 820-MW power block came on-line November 24, 2018. The rate increase for the second unit was effective in January 2019. The ultimate cost of the facility is estimated to be $1.6 billion, and Duke Energy Florida recorded Impairment charges on Duke Energy's Consolidated Statements of Operations of $60 million in the fourth quarter of 2018 for the overrun, which may change in light of recoveries from the EPC contractor. The plant began receiving natural gas from the Sabal Trail pipeline in August 2018. As a result of the combined-cycle natural gas plant coming on-line, Crystal River coal-fired units 1 and 2 were retired in December 2018. See Note 5 for additional information on Citrus.

Solar Base Rate Adjustment

On July 31, 2018, Duke Energy Florida petitioned the FPSC to include in base rates the revenue requirements for its first two solar generation projects, the Hamilton Project and the Columbia Project, as authorized by the 2017 Settlement. The Hamilton Project, which was placed into service on December 22, 2018, has an annual retail revenue requirement of $15 million and the increase was effective in January 2019. The Columbia Project has a projected annual revenue requirement of $14 million and a projected in-service date in early 2020; the associated rate increase would take place with the first month's billing cycle after the Columbia Project goes into service. At its October 30, 2018, Agenda Conference, the FPSC approved the rate increase related to the Hamilton Project to go into effect beginning with the first billing cycle in January 2019 under its file and suspend authority. Rates are subject to true up pending the outcome of the final hearing, which is scheduled to take place on April 2, 2019. Duke Energy Florida cannot predict the outcome of this matter.

Duke Energy Ohio

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Duke Energy Ohio's Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017	Earns/Pays a Return	Recovery/Refund Period Ends
Regulatory Assets[a]				
AROs – coal ash	**$ 20**	$ 17	X	(b)
Accrued pension and OPEB	**146**	139		(g)
Storm cost deferrals	**4**	5		2023
Hedge costs deferrals	**5**	6		(b)
DSM/EE	**10**	18	(f)	(e)
Grid modernization	**31**	39	X	(e)
Vacation accrual	**5**	5		2019
Deferred fuel and purchased power	**2**	—		2019
PISCC and deferred operating expenses[c]	**17**	19	X	2083
Transmission expansion obligation	**43**	50		(e)
MGP	**99**	91		(b)
AMI	**46**	6		(b)
East Bend deferrals	**47**	45	X	(b)
Deferred pipeline integrity costs	**14**	12	X	(b)
Other	**75**	42		(b)
Total regulatory assets	**564**	494		
Less: current portion	**33**	49		
Total noncurrent regulatory assets	**$ 531**	$ 445		
Regulatory Liabilities[a]				
Costs of removal	**$ 126**	$ 189		(d)
Net regulatory liability related to income taxes	**678**	688		(b)
Accrued pension and OPEB	**18**	16		(g)
Other	**75**	34		(b)
Total regulatory liabilities	**897**	927		
Less: current portion	**57**	36		
Total noncurrent regulatory liabilities	**$ 840**	$ 891		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Included in rate base.
(d) Recovery over the life of the associated assets.
(e) Recovered via a rider mechanism.
(f) Includes incentives on DSM/EE investments.
(g) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.

2017 Electric Security Plan

On June 1, 2017, Duke Energy Ohio filed with the PUCO a request for a standard service offer in the form of an ESP. On February 15, 2018, the procedural schedule was suspended to facilitate ongoing settlement discussions. On April 13, 2018, Duke Energy Ohio filed a Motion to consolidate this proceeding with several other cases currently pending before the PUCO, including, but not limited to, its Electric Base Rate Case. Additionally, on April 13, 2018, Duke Energy Ohio, along with certain intervenors, filed a Stipulation and Recommendation (Stipulation) with the PUCO resolving certain issues in this proceeding. The term of the ESP would be from June 1, 2018, to May 31, 2025, and includes continuation of market-based customer rates through competitive procurement processes for generation, continuation and expansion of existing rider mechanisms and proposed new rider mechanisms relating to regulatory mandates, costs incurred to enhance the customer experience and transform the grid and a service reliability rider for vegetation management. The Stipulation establishes a regulatory model for the next seven years via the approval of the ESP and continues the current model for procuring supply for non-shopping customers, including recovery mechanisms. On December 19, 2018, the PUCO approved the Stipulation without material modification. Several parties have filed applications for rehearing. On February 6, 2019, the PUCO granted the parties rehearing. Duke Energy Ohio cannot predict the outcome of this matter.

Electric Base Rate Case

Duke Energy Ohio filed with the PUCO an electric distribution base rate case application and supporting testimony in March 2017. Duke Energy Ohio requested an estimated annual increase of approximately $15 million and a return on equity of 10.4 percent. The application also included requests to continue certain current riders and establish new riders. On September 26, 2017, the PUCO staff filed a report recommending a revenue decrease between approximately $18 million and $29 million and a return on equity between 9.22 percent and 10.24 percent. On April 13, 2018, Duke Energy Ohio filed a Motion to consolidate this proceeding with several other cases pending before the PUCO. On April 13, 2018, Duke Energy Ohio, along with certain intervenors, filed the Stipulation with the PUCO resolving numerous issues including those in this base rate proceeding. Major components of the Stipulation related to the base distribution rate case include a $19 million decrease in annual base distribution revenue with a return on equity unchanged from the current rate of 9.84 percent based upon a capital structure of 50.75 percent equity and 49.25 percent debt. Upon approval of new rates, Duke Energy Ohio's rider for recovering its initial SmartGrid implementation ends as these costs will be recovered through base rates. The Stipulation also renews 14 existing riders, some of which were included in the company's ESP, and adds two new riders including the Enhanced Service Reliability Rider to recover vegetation management costs not included in base rates, up to $10 million per year (operation and maintenance only) and the PowerForward Rider to recover costs incurred to enhance the customer experience and further transform the grid (operation and maintenance and capital). In addition to the changes in revenue attributable to the Stipulation, Duke Energy Ohio’s capital-related riders, including the Distribution Capital Investments Rider, began to reflect the lower federal income tax rate associated with the Tax Act with updates to customers’ bills beginning April 1, 2018. This change reduces electric revenue by approximately $20 million on an annualized basis. On December 19, 2018, the PUCO approved the Stipulation without material modification. New base rates were implemented effective January 2, 2019. Several parties have filed applications for rehearing. On February 6, 2019, the PUCO granted the parties rehearing. Duke Energy Ohio cannot predict the outcome of this matter.

Ohio Valley Electric Corporation

On March 31, 2017, Duke Energy Ohio filed for approval to adjust its existing price stabilization rider (Rider PSR), which is currently set at zero dollars, to pass through net costs related to its contractual entitlement to capacity and energy from the generating assets owned by OVEC. Duke Energy Ohio sought deferral authority for net costs incurred from April 1, 2017, until the new rates under Rider PSR are put into effect. On April 13, 2018, Duke Energy Ohio filed a Motion to consolidate this proceeding with several other cases currently pending before the PUCO. Also on April 13, 2018, Duke Energy Ohio, along with certain intervenors, filed a Stipulation with the PUCO resolving numerous issues including those related to Rider PSR. The Stipulation activates Rider PSR for recovery of net costs incurred from January 1, 2018 through May 2025. On December 19, 2018, the PUCO approved the Stipulation without material modification. Several parties have filed applications for rehearing. On February 6, 2019, the PUCO granted the parties rehearing. Duke Energy Ohio cannot predict the outcome of this matter. See Note 17 for additional discussion of Duke Energy Ohio's ownership interest in OVEC.

Tax Act – Ohio

On July 25, 2018, Duke Energy Ohio filed an application to establish a new rider to implement the benefits of the Tax Act for electric distribution customers. Duke Energy Ohio requested commission approval to implement the rider effective October 1, 2018, as a credit to all distribution customers based upon a percent reduction to Duke Energy Ohio’s distribution rates. The new rider will flow through to customers the benefit of the lower statutory federal tax rate from 35 to 21 percent since January 1, 2018, all future benefits of the lower tax rates and a full refund of deferred income taxes collected at the higher tax rates in prior years. Deferred income taxes subject to normalization rules will be refunded consistent with federal law and deferred income taxes not subject to normalization rules will be refunded over a 10-year period. Duke Energy Ohio's transmission rates reflect lower federal income tax but guidance from FERC on amortization of both protected and unprotected transmission-related EDITs is still pending. On October 24, 2018, the PUCO issued a Finding and Order that, among other things, directed all utilities over which the commission has rate-making authority to file an application to pass the benefits of the Tax Act to customers by January 1, 2019, unless otherwise exempted or directed by the PUCO. Duke Energy Ohio's July 25, 2018, filing for electric distribution operations is consistent with the commission's October 24, 2018, Finding and Order and no further action is needed. On February 20, 2019, the PUCO approved the application without material modification. Rates will be effective March 1, 2019. On December 21, 2018, Duke Energy Ohio filed an application to change its base rates and establish a new rider to implement the benefits of the Tax Act for natural gas customers. Duke Energy Ohio requested commission approval to implement the changes and rider effective April 1, 2019. The new rider will flow through to customers the benefit of the lower statutory federal tax rate from 35 to 21 percent since January 1, 2018, all future benefits of the lower tax rates and a full refund of deferred income taxes collected at the higher tax rates in prior years. Deferred income taxes subject to normalization rules will be refunded consistent with federal law and deferred income taxes not subject to normalization rules will be refunded over a 10-year period. The PUCO has not yet ruled on the application for changes for natural gas customers. Duke Energy Ohio cannot predict the outcome of this matter.

Energy Efficiency Cost Recovery

On March 28, 2014, Duke Energy Ohio filed an application for recovery of program costs, lost distribution revenue and performance incentives related to its energy efficiency and peak demand reduction programs. These programs are undertaken to comply with environmental mandates set forth in Ohio law. The PUCO approved Duke Energy Ohio’s application but found that Duke Energy Ohio was not permitted to use banked energy savings from previous years in order to calculate the amount of allowed incentive. This conclusion represented a change to the cost recovery mechanism that had been agreed upon by intervenors and approved by the PUCO in previous cases. The PUCO granted the applications for rehearing filed by Duke Energy Ohio and an intervenor. On January 6, 2016, Duke Energy Ohio and the PUCO Staff entered into a stipulation, pending the PUCO's approval, to resolve issues related to performance incentives and the PUCO Staff audit of 2013 costs, among other issues. In December 2015, based upon the stipulation, Duke Energy Ohio re-established approximately $20 million of the revenues that had been previously reversed. On October 26, 2016, the PUCO issued an order approving the stipulation without modification. In December 2016, the PUCO granted the intervenors request for rehearing for the purpose of further review. Duke Energy Ohio cannot predict the outcome of this matter.

On June 15, 2016, Duke Energy Ohio filed an application for approval of a three-year energy efficiency and peak demand reduction portfolio of programs. A stipulation and modified stipulation were filed on December 22, 2016, and January 27, 2017, respectively. Under the terms of the stipulations, which included support for deferral authority of all costs and a cap on shared savings incentives, Duke Energy Ohio has offered its energy efficiency and peak demand reduction programs throughout 2017. On February 3, 2017, Duke Energy Ohio filed for deferral authority of its costs incurred in 2017 in respect of its proposed energy efficiency and peak demand reduction portfolio. On September 27, 2017, the PUCO issued an order approving a modified stipulation. The modifications impose an annual cap of approximately $38 million on program costs and shared savings incentives combined, but allowed for Duke Energy Ohio to file for a waiver of costs in excess of the cap in 2017. The PUCO approved the waiver request for 2017 up to a total cost of $56 million. On November 21, 2017, the PUCO granted Duke Energy Ohio's and intervenor's applications for rehearing of the September 27, 2017, order. On January 10, 2018, the PUCO denied the Ohio Consumers' Counsel's application for rehearing of the PUCO order granting Duke Energy Ohio's waiver request; however, a decision on Duke Energy Ohio's application for rehearing remains pending. Duke Energy Ohio cannot predict the outcome of this matter.

2014 Electric Security Plan

In April 2015, the PUCO modified and approved Duke Energy Ohio's proposed ESP, with a three-year term and an effective date of June 1, 2015. The PUCO approved a competitive procurement process for SSO load, a distribution capital investment rider (Rider DCI) and a tracking mechanism for incremental distribution expenses caused by major storms. The PUCO also approved a placeholder tariff for a price stabilization rider, but denied Duke Energy Ohio's specific request to include Duke Energy Ohio's entitlement to generation from OVEC in the rider at this time; however, the order allows Duke Energy Ohio to submit additional information to request recovery in the future. On May 4, 2015, Duke Energy Ohio filed an application for rehearing requesting the PUCO to modify or amend certain aspects of the order. On May 28, 2015, the PUCO granted all applications for rehearing filed in the case for future consideration. On March 21, 2018, the PUCO issued an order denying Duke Energy Ohio's issues on rehearing. On April 20, 2018, Duke Energy Ohio filed a second application for rehearing based upon the commission's March 21, 2018, Order. On May 16, 2018, the commission issued its third Entry on Rehearing granting in part, and denying in part, Duke Energy Ohio's rehearing request.

On March 9, 2018, Duke Energy Ohio filed a motion to extend its then-current ESP, including all terms and conditions thereof, pending approval of a new ESP. On May 30, 2018, the PUCO granted the request, with modification. Specifically, the PUCO did not extend the cap applicable to Rider DCI beyond July 31, 2018. Duke Energy Ohio sought rehearing of this finding. On July 25, 2018, the PUCO granted the request and allowed a continuing cap on recovery under Rider DCI. On August 24, 2018, OMA and OCC filed an Application for Rehearing of the commission's decision. Duke Energy Ohio filed a Memorandum Contra OCC's request for rehearing of the commission's continuation of Rider DCI on September 4, 2018. On September 19, 2018, the PUCO issued an Order granting rehearing on the matter for further consideration. Duke Energy Ohio cannot predict the outcome of this matter.

On May 21, 2018, the Ohio Manufacturers' Association (OMA) filed a notice of appeal of PUCO's approval of Duke Energy Ohio's ESP with the Ohio Supreme Court, challenging PUCO's approval of Duke Energy Ohio's Price Stability Rider as a placeholder and its Rider DCI to recover incremental revenue requirement for distribution capital since Duke Energy Ohio's last base rate case. On July 16, 2018, the Office of the Ohio Consumers' Counsel (OCC) filed its own appeal of Duke Energy Ohio's ESP with the Ohio Supreme Court raising similar issues to that of the OMA. Duke Energy Ohio filed a Motion to Intervene in the two Ohio Supreme Court appeals. OMA's Supreme Court brief was filed on August 20, 2018. PUCO submitted its brief on October 26, 2018, and Duke Energy Ohio filed its brief on October 29, 2018. The OCC's Supreme Court brief was filed on October 15, 2018. Duke Energy Ohio filed its brief on December 20, 2018. The PUCO submitted its brief on December 21, 2018. Duke Energy Ohio cannot predict the outcome of this matter.

Natural Gas Pipeline Extension

Duke Energy Ohio is proposing to install a new natural gas pipeline (the Central Corridor Project) in its Ohio service territory to increase system reliability and enable the retirement of older infrastructure. Duke Energy Ohio currently estimates the pipeline development costs and construction activities will range from $163 million to $245 million in direct costs (excluding overheads and AFUDC). On January 20, 2017, Duke Energy Ohio filed an amended application with the Ohio Power Siting Board (OPSB) for approval of one of two proposed routes. A public hearing was held on June 15, 2017. In April 2018, Duke Energy Ohio filed a motion with OPSB to establish a procedural schedule and filed supplemental information supporting its application. On December 18, 2018, the OPSB established a procedural schedule that includes a local public hearing on March 21, 2019, and an evidentiary hearing starting on April 9, 2019. If approved, construction of the pipeline extension is expected to be completed before the 2021/2022 winter season. Duke Energy Ohio cannot predict the outcome of this matter.

2012 Natural Gas Rate Case/MGP Cost Recovery

On November 13, 2013, the PUCO issued an order approving a settlement of Duke Energy Ohio's natural gas base rate case and authorizing the recovery of costs incurred between 2008 and 2012 for environmental investigation and remediation of two former MGP sites. The PUCO order also authorized Duke Energy Ohio to continue deferring MGP environmental investigation and remediation costs incurred subsequent to 2012 and to submit annual filings to adjust the MGP rider for future costs. Intervening parties appealed this decision to the Ohio Supreme Court and on June 29, 2017, the Ohio Supreme Court issued its decision affirming the PUCO order. Appellants filed a request for reconsideration, which was denied on September 27, 2017. This matter is now final.

The PUCO order also contained conditional deadlines for completing the MGP environmental investigation and remediation costs at the MGP sites. As of December 31, 2018, Duke Energy Ohio had approximately $24 million for future remediation costs expected to be incurred at the East End site and approximately $23 million for future remediation costs expected to be incurred at the West End site included in Regulatory assets within Other Noncurrent Assets on the Consolidated Balance Sheets.

Duke Energy Kentucky Electric Rate Case

On September 1, 2017, Duke Energy Kentucky filed a rate case with the KPSC requesting an increase in electric base rates of approximately $49 million, which represents an approximate 15 percent increase on the average customer bill. Subsequent to the filing, Duke Energy Kentucky adjusted the requested amount to $30.1 million, in part to reflect the benefits of the Tax Act, representing an approximate 9 percent increase on the average customer bill. The rate increase was driven by increased investment in utility plant, increased operations and maintenance expenses and recovery of regulatory assets. The application also includes requests to implement an Environmental Surcharge Mechanism to recover environmental costs not recovered in base rates, to establish a Distribution Capital Investment Rider to recover incremental costs of specific programs, to establish a FERC Transmission Cost Reconciliation Rider to recover escalating transmission costs and to modify existing Profit Sharing Mechanism to increase customers' share of proceeds from the benefits of owning generation and to mitigate shareholder risks associated with that generation. An evidentiary hearing concluded on March 8, 2018, and the KPSC issued an order on April 13, 2018. Major components of the Order include approval of an $8 million increase in base rates with a return on equity at 9.725 percent based upon a capital structure of 49 percent equity on a total allocable capitalization of approximately $650 million. The Order approved the Environmental Surcharge Mechanism Rider and in June 2018 recovery began of capital-related environmental costs, including costs related to ash and ash disposal, and environmental operation and maintenance expenses formerly recovered in base rates, including expenses for environmental reagents and emission allowances. The incremental revenue from this rider will be approximately $13 million on an annualized basis. The order settles all issues associated with the Tax Act as it relates to the electric business by lowering the income tax component of the revenue requirement and refunding protected EDIT under allowable normalization rules and unprotected EDIT over 10 years. The Order denied requests to implement riders for certain transmission costs and distribution capital investments. Duke Energy Kentucky implemented new base rates on May 1, 2018. On May 3, 2018, Duke Energy Kentucky filed an application for rehearing on certain aspects of the order; on May 23, 2018, the KPSC granted a rehearing. On October 2, 2018, the KPSC issued its rehearing order correcting certain findings in its initial order and making additional changes that are immaterial to the company's earnings.

Duke Energy Kentucky Natural Gas Base Rate Case

On August 31, 2018, Duke Energy Kentucky filed an application with the KPSC requesting an increase in natural gas base rates of approximately $11 million, an approximate 11.1 percent average increase across all customer classes. The increase is net of approximately $5 million in annual savings as a result of the Tax Act. The drivers for this case are capital invested since Duke Energy Kentucky's last rate case in 2009. Duke Energy Kentucky is also seeking implementation of a Weather Normalization Adjustment Mechanism, amortization of regulatory assets and to implement the impacts of the Tax Act, prospectively. On January 30, 2019, Duke Energy Kentucky entered into a settlement agreement with the Attorney General of Kentucky, the only intervenor in the case, which if approved would resolve the matter. The settlement provides for an approximate $7 million increase and approval of the proposed Weather Normalization Mechanism. A hearing was held on February 5, 2019. A ruling is expected in late first quarter 2019. Duke Energy Kentucky cannot predict the outcome of this matter.

FERC 494 Refund of Regional Transmission Enhancement Projects

FERC Order No. 494 Settlement Agreement (FERC 494 Settlement Agreement) was entered into by most of the PJM transmission owners, including Duke Energy Ohio and Duke Energy Kentucky, and the PJM state regulatory commissions approximately two years ago and was planned to be effective on January 1, 2016; however, it was not approved by FERC until May 31, 2018. The FERC 494 Settlement Agreement was due to the Seventh Circuit Court of Appeals finding that FERC had failed to adequately justify the costs that the customers in the western part of PJM were being charged for high voltage transmission projects, or Regional Transmission Expansion Plan (RTEP) projects (500 kV and above) built in the east. These costs were being allocated to all PJM customers on a load-ratio share basis but the court determined that these costs were not justifiable to customers in the west, including Duke Energy Ohio and Duke Energy Kentucky, that did not benefit from the RTEP projects. Costs for the periods 2012 through 2015 are expected to be refunded to Duke Energy Ohio and Duke Energy Kentucky on a monthly basis through December 2025. The refund amount for similar costs incurred beginning in 2016 through June 30, 2018, prior to the change in cost allocation by PJM was determined in the third quarter of 2018 and these amounts will be refunded over a 12-month period beginning in July 2018. These refunds, totaling approximately $47 million for Duke Energy Ohio and Duke Energy Kentucky, have been recorded to Operation, maintenance and other on the Consolidated Statements of Operations for the year ended December 31, 2018.

Regional Transmission Organization Realignment

Duke Energy Ohio, including Duke Energy Kentucky, transferred control of its transmission assets from MISO to PJM, effective December 31, 2011. The PUCO approved a settlement related to Duke Energy Ohio's recovery of certain costs of the RTO realignment via a non-bypassable rider. Duke Energy Ohio is allowed to recover all MTEP costs directly or indirectly charged to Ohio customers. The KPSC also approved a request to effect the RTO realignment, subject to a commitment not to seek double recovery in a future rate case of the transmission expansion fees that may be charged by MISO and PJM in the same period or overlapping periods.

The following table provides a reconciliation of the beginning and ending balance of Duke Energy Ohio's recorded liability for its exit obligation and share of MTEP costs recorded in Other within Current Liabilities and Other Noncurrent Liabilities on the Consolidated Balance Sheets. The retail portions of MTEP costs billed by MISO are recovered by Duke Energy Ohio through a non-bypassable rider. As of December 31, 2018, and 2017, $43 million and $50 million, respectively, are recorded in Regulatory assets on Duke Energy Ohio's Consolidated Balance Sheets.

(in millions)	December 31, 2017	Provisions/ Adjustments	Cash Reductions	December 31, 2018
Duke Energy Ohio	$ 66	**$ (4)**	**$ (4)**	**$ 58**

Duke Energy Indiana

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Duke Energy Indiana's Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017	Earns/Pays a Return	Recovery/Refund Period Ends
Regulatory Assets[a]				
AROs – coal ash	**$ 450**	$ 380		(b)
Accrued pension and OPEB	**222**	197		(f)
Retired generation facilities[c]	**57**	65	X	2026
Hedge costs deferrals	**24**	25		(b)
DSM/EE	**14**	21	(e)	(e)
Vacation accrual	**11**	11		2019
Deferred fuel and purchased power	**40**	18		2019
PISCC and deferred operating expenses[c]	**233**	274	X	(b)
AMI[c]	**18**	21	X	(b)
Other	**88**	131		(b)
Total regulatory assets	**1,157**	1,143		
Less: current portion	**175**	165		
Total noncurrent regulatory assets	**$ 982**	$ 978		
Regulatory Liabilities[a]				
Costs of removal	**$ 628**	$ 644		(d)
Net regulatory liability related to income taxes	**1,009**	998		(b)
Amounts to be refunded to customers	**1**	10		2019
Accrued pension and OPEB	**67**	64		(f)
Other	**42**	31		(b)
Total regulatory liabilities	**1,747**	1,747		
Less: current portion	**25**	24		
Total noncurrent regulatory liabilities	**$ 1,722**	$ 1,723		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Included in rate base.
(d) Recovery over the life of the associated assets.
(e) Includes incentives on DSM/EE investments and is recovered through a tracker mechanism over a two-year period.
(f) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.

FERC Transmission Return on Equity Complaint

Customer groups have filed with the FERC complaints against Midcontinent Independent System Operator, Inc. (MISO) and its transmission-owning members, including Duke Energy Indiana, alleging, among other things, that the current base rate of return on equity earned by MISO transmission owners of 12.38 percent is unjust and unreasonable. The complaints claim, among other things, that the current base rate of return on equity earned by MISO transmission owners should be reduced to 8.67 percent. On January 5, 2015, the FERC issued an order accepting the MISO transmission owners' adder of 0.50 percent to the base rate of return on equity based on participation in an RTO subject to it being applied to a return on equity that is shown to be just and reasonable in the pending return on equity complaints. On December 22, 2015, the presiding FERC ALJ in the first complaint issued an Initial Decision in which the base rate of return on equity was set at 10.32 percent. On September 28, 2016, the Initial Decision in the first complaint was affirmed by FERC, but is subject to rehearing requests. On June 30, 2016, the presiding FERC ALJ in the second complaint issued an Initial Decision setting the base rate of return on equity at 9.70 percent. The Initial Decision in the second complaint is pending FERC review. On April 14, 2017, the U.S. Court of Appeals for the District of Columbia Circuit, in *Emera Maine v. FERC*, reversed and remanded certain aspects of the methodology employed by FERC to establish rates of return on equity. On October 16, 2018, FERC issued an order in response to the Emera remand proceeding proposing a new method for determining whether an existing return on equity is unjust and unreasonable, and a new process for determining a just and reasonable return on equity. On November 14, 2018, FERC directed parties to the MISO complaints to file briefs on how the new process for determining return on equity proposed in the Emera proceeding should be applied to the complaints involving the MISO transmission owners' return on equity. Initial briefs were filed on February 13, 2019, and reply briefs will be due April 10, 2019. Duke Energy Indiana currently believes these matters will not have a material impact on its results of operations, cash flows and financial position.

Benton County Wind Farm Dispute

On December 16, 2013, BCWF filed a lawsuit against Duke Energy Indiana seeking damages for past generation losses alleging Duke Energy Indiana violated its obligations under a 2006 PPA by refusing to offer electricity to the market at negative prices. Damage claims continue to increase during times that BCWF is not dispatched. Under 2013 revised MISO market rules, Duke Energy Indiana is required to make a price offer to MISO for the power it proposes to sell into MISO markets and MISO determines whether BCWF is dispatched. Because market prices would have been negative due to increased market participation, Duke Energy Indiana determined it would not bid at negative prices in order to balance customer needs against BCWF's need to run. BCWF contends Duke Energy Indiana must bid at the lowest negative price to ensure dispatch, while Duke Energy Indiana contends it is not obligated to bid at any particular price, that it cannot ensure dispatch with any bid and that it has reasonably balanced the parties' interests. On July 6, 2015, the U.S. District Court for the Southern District of Indiana entered judgment against BCWF on all claims. BCWF appealed the decision and on December 9, 2016, the appeals court ruled in favor of BCWF. Duke Energy Indiana recorded an obligation and a regulatory asset related to the settlement amount in fourth quarter 2016. On June 30, 2017, the parties finalized a settlement agreement. Terms of the settlement included Duke Energy Indiana paying $29 million for back damages. Additionally, the parties agreed on the method by which the contract will be bid into the market in the future. The settlement amount was paid in June 2017. The IURC issued an order on September 27, 2017, approving recovery of the settlement amount through Duke Energy Indiana's fuel clause. The IURC order has been appealed to the Indiana Court of Appeals. On May 21, 2018, the Indiana Court of Appeals upheld the commission's decision. The appellants have requested rehearing at the Indiana Court of Appeals. The Indiana Court of Appeals denied the request for rehearing. The appellants have requested transfer to the Indiana Supreme Court, including briefs in support from environmental groups. The Indiana Supreme Court denied transfer concluding this matter in favor of Duke Energy Indiana.

Edwardsport Integrated Gasification Combined Cycle Plant

On September 20, 2018, Duke Energy Indiana, the Indiana Office of Utility Consumer Counselor, the Duke Industrial Group and Nucor Steel – Indiana entered into a settlement agreement to resolve IGCC ratemaking issues for calendar years 2018 and 2019. The agreement will remain in effect until new rates are established in Duke Energy Indiana's next base rate case, which is expected to be filed in mid-2019 with rates effective in mid-2020. It addresses the pending Edwardsport filing at the commission and eliminates the need for future filings until the overall rate case. This settlement includes caps on Duke Energy Indiana’s retail operating expenses for 2018 and 2019, reduces Duke Energy Indiana's regulatory asset by $30 million (with a corresponding reduction of the amount of amortization of the regulatory asset included in rates by $10 million annually beginning with the implementation of final IGCC 17 rates), and provides funding for low-income assistance and clean energy projects. Duke Energy Indiana recognized pretax impairment and related charges of $32 million in the third quarter of 2018. The settlement is subject to IURC approval. An evidentiary hearing was held December 2018 and an IURC Order is expected in March 2019. Duke Energy Indiana cannot predict the outcome of this matter.

Tax Act

On June 27, 2018, Duke Energy Indiana, the Indiana Office of Utility Consumer Counselor, the Indiana Industrial Group and Nucor Steel – Indiana filed testimony consistent with their Stipulation and Settlement Agreement (Settlement Agreement) in the federal tax act proceeding with the IURC. The Settlement Agreement outlines how Duke Energy Indiana will implement the impacts of the Tax Act. Material components of the Settlement Agreement were as follows:

- Riders to reflect the change in the statutory federal tax rate from 35 to 21 percent as they are filed in 2018;
- Base rates to reflect the change in the statutory federal tax rate from 35 to 21 percent upon IURC approval, but no later than September 1, 2018;
- Duke Energy Indiana to continue to defer protected federal EDIT until January 1, 2020, at which time it will be returned to customers according to the Average Rate Assumption Method required by the Internal Revenue Service over approximately 26 years; and
- Duke Energy Indiana to begin returning unprotected federal EDIT upon IURC approval, over 10 years. In order to mitigate the negative impacts to cash flow and credit metrics, the Settlement Agreement allows Duke Energy Indiana to return $7 million per year over the first five years, with a step up to $35 million per year in the following five years.

On August 22, 2018, the IURC approved the settlement and rates were adjusted effective September 1, 2018.

Piedmont

Regulatory Assets and Liabilities

The following tables present the regulatory assets and liabilities recorded on Piedmont's Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017	Earns/Pays a Return	Recovery/Refund Period Ends
Regulatory Assets[a]				
AROs – other	**$ 19**	$ 15		(d)
Accrued pension and OPEB[c]	**99**	91	X	(f)
Derivatives – gas supply contracts[e]	**141**	142		
Vacation accrual	**12**	10		
Deferred pipeline integrity costs[c]	**51**	42	X	(b)
Amount due from customers	**24**	64	X	(b)
Other	**11**	14		(b)
Total regulatory assets	**357**	378		
Less: current portion	**54**	95		
Total noncurrent regulatory assets	**$ 303**	$ 283		
Regulatory Liabilities[a]				
Costs of removal	**$ 564**	$ 544		(d)
Net regulatory liability related to income taxes	**579**	597		(b)
Accrued pension and OPEB[c]	**1**	—	X	(f)
Amount due to customers	**33**	—	X	(b)
Other	**41**	3		(b)
Total regulatory liabilities	**1,218**	1,144		
Less: current portion	**37**	3		
Total noncurrent regulatory liabilities	**$ 1,181**	$ 1,141		

(a) Regulatory assets and liabilities are excluded from rate base unless otherwise noted.
(b) The expected recovery or refund period varies or has not been determined.
(c) Included in rate base.
(d) Recovery over the life of the associated assets.
(e) Balance will fluctuate with changes in the market. Current contracts extend into 2031.
(f) Recovered primarily over the average remaining service periods or life expectancies of employees covered by the benefit plans. See Note 22 for additional detail.

South Carolina Rate Stabilization Adjustment Filing

On June 15, 2018, Piedmont filed with the PSCSC under the South Carolina Rate Stabilization Act its quarterly monitoring report for the 12-month period ending March 31, 2018. The filing included a revenue deficiency calculation and tariff rates in order to permit Piedmont the opportunity to earn the rate of return on common equity established in its last general rate case. The filing also incorporated the impacts of the Tax Act by lowering the income tax component of the revenue requirement, refunding protected EDIT under allowable normalization rules, unprotected EDIT and amounts over collected from the customers from January 1, 2018, through the end of the review period for this proceeding. A settlement agreement reached between Piedmont and ORS was filed with the PSCSC on September 14, 2018, and approved by the PSCSC on October 3, 2018. Terms of the settlement include implementation of rates for the 12-month period beginning November 2018 with a return on equity of 10.2 percent.

North Carolina Integrity Management Rider Filing

In October 2018, Piedmont filed a petition under the IMR mechanism to collect an additional $10 million in annual revenues, effective December 2018, based on the eligible capital investments closed to integrity and safety projects over the six-month period ended September 30, 2018. On November 27, 2018, the NCUC approved the requested rate adjustment.

In May 2018, Piedmont filed, and the NCUC approved, a petition under the IMR mechanism to update rates, effective June 2018, based on the eligible capital investments closed to integrity and safety projects over the six-month period ending March 31, 2018, and the decrease in the corporate federal income tax rate effective January 1, 2018. The combined effect of the update was a reduction to annual revenues of approximately $6 million.

Tennessee Integrity Management Rider Filing

In November 2018, Piedmont filed a petition with the TPUC under the IMR mechanism to collect an additional $3 million in annual revenues, effective January 2019, based on the eligible capital investments closed to integrity and safety projects over the 12-month period ending October 31, 2018. A hearing on this matter is scheduled for March 2019.

2018 North Carolina Rate Case

On February 27, 2019, Piedmont filed a notice with the NCUC of its intent to file a base rate adjustment application no earlier than 30 days from the notice submittal date.

OTHER REGULATORY MATTERS

Progress Energy Merger FERC Mitigation

Since December 2014, the FERC Office of Enforcement has conducted an investigation of Duke Energy's market power filings in its application for approval of the Progress Energy merger submitted in 2012. On June 8, 2018, the FERC issued an order approving a settlement agreement under which Duke Energy paid a penalty of $3.5 million. The FERC Office of Enforcement stated in its conclusion that Duke Energy violated FERC regulations by failing to fully and accurately describe certain specific matters in its market power filings. Duke Energy neither admitted nor denied the alleged violations.

Atlantic Coast Pipeline, LLC

On September 2, 2014, Duke Energy, Dominion Resources (Dominion), Piedmont and Southern Company Gas announced the formation of Atlantic Coast Pipeline, LLC (ACP) to build and own the proposed Atlantic Coast Pipeline (ACP pipeline), an approximately 600-mile interstate natural gas pipeline running from West Virginia to North Carolina. The ACP pipeline is designed to meet, in part, the needs identified by Duke Energy Carolinas, Duke Energy Progress and Piedmont. Dominion will be responsible for building and operating the ACP pipeline and holds a leading ownership percentage in ACP of 48 percent. Duke Energy owns a 47 percent interest, which is accounted for as an equity method investment through its Gas Utilities and Infrastructure segment. Southern Company Gas maintains a 5 percent interest. See Notes 12 and 17 for additional information related to Duke Energy's ownership interest. Duke Energy Carolinas, Duke Energy Progress and Piedmont, among others, will be customers of the pipeline. Purchases will be made under several 20-year supply contracts, subject to state regulatory approval.

In 2018, the FERC issued a series of Notices to Proceed, which authorized the project to begin certain construction-related activities along the pipeline route, including supply header and compressors. On May 11, 2018, and October 19, 2018, FERC issued Notices to Proceed allowing full construction activities in all areas of West Virginia except in the Monongahela National Forest. On July 24, 2018, FERC issued a Notice to Proceed allowing full construction activities along the project route in North Carolina. On October 19, 2018, the conditions to effectiveness of the Virginia 401 water quality certification were satisfied. Immediately following receipt of the Virginia 401 certification, ACP filed a request for FERC to issue a Notice to Proceed with full construction activities in Virginia. We appreciate the professional and collaborative process by the permitting agencies designed to ensure that this critical energy infrastructure project will meet the stringent environmental standards required by law and regulation.

ACP is the subject of challenges in state and federal courts and agencies, including, among others, challenges of the project's incidental take statement (ITS), crossings of the Blue Ridge Parkway, the Appalachian Trail, and the Monongahela and George Washington National Forests, the project's U.S. Army Corps of Engineers (USACE) 404 permit, the Virginia conditional 401 water quality certification, the FERC Environmental Impact Statement order and the FERC order approving the Certificate of Public Convenience and Necessity. Each of these challenges alleges non-compliance on the part of federal and state permitting authorities and adverse ecological consequences if the project is permitted to proceed. ACP is vigorously defending these challenges and coordinating with the federal and state authorities which are the direct parties to the challenges. Since July 2018, notable developments in these challenges include a stay issued by the U.S. Court of Appeals for the Fourth Circuit (Fourth Circuit) on construction activities through the Monongahela and George Washington National Forests, a reissuance of the project's ITS and Blue Ridge Parkway right-of-way and renewed challenges of these reissued permits, a stay issued by the Fourth Circuit of the project's biological opinion and ITS (which stay has halted most project construction activity), a Fourth Circuit decision vacating the project's permits to cross the Monongahela and George Washington National Forests and the Appalachian Trail and the Fourth Circuit's remand to USACE of ACP's Huntington District 404 verification.

The delays resulting from the legal challenges described above have impacted the cost and schedule for the project. As a result, project cost estimates have increased to $7.0 billion to $7.8 billion, excluding financing costs. ACP expects to achieve a late 2020 in-service date for key segments of the project, while it expects the remainder to extend into 2021. Abnormal weather, work delays (including delays due to judicial or regulatory action) and other conditions may result in cost or schedule modifications in the future.

Sabal Trail Transmission, LLC

On May 4, 2015, Duke Energy acquired a 7.5 percent ownership interest in Sabal Trail, which is accounted for as an equity method investment, from Spectra Energy Partners, LP, a master limited partnership, formed by Enbridge Inc. (formerly Spectra Energy Corp.). Spectra Energy Partners, LP holds a 50 percent ownership interest in Sabal Trail and NextEra Energy has a 42.5 percent ownership interest. Sabal Trail is a joint venture to construct a 515-mile natural gas pipeline (Sabal Trail pipeline) to transport natural gas to Florida. Total estimated project costs are approximately $3.2 billion. The Sabal Trail pipeline traverses Alabama, Georgia and Florida. The primary customers of the Sabal Trail pipeline, Duke Energy Florida and FP&L have each contracted to buy pipeline capacity for 25-year initial terms. See Notes 12 and 17 for additional information related to Duke Energy's ownership interest.

On February 3, 2016, the FERC issued an order granting the request for a CPCN to construct and operate the pipeline. The Sabal Trail pipeline received other required regulatory approvals and the Phase 1 mainline was placed in service in July 2017. On October 12, 2017, Sabal Trail filed a request with FERC to place in-service a lateral line to Duke Energy Florida's Citrus County CC. This request is required to support commissioning and testing activities at the facility. On March 16, 2018, FERC approved the Citrus lateral and it was placed in service.

On September 21, 2016, intervenors filed an appeal of FERC's CPCN orders to the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court of Appeals). On August 22, 2017, the appeals court ruled against FERC in the case for failing to include enough information on the impact of greenhouse-gas emissions carried by the pipeline, vacated the CPCN order and remanded the case to FERC. In response to the August 2017 court decision, the FERC issued a draft Supplemental Environmental Impact Statement (SEIS) on September 27, 2017. On October 6, 2017, FERC and a group of industry intervenors, including Sabal Trail and Duke Energy Florida, filed separate petitions with the D.C. Circuit Court of Appeals requesting rehearing regarding the court's decision to vacate the CPCN order. On January 31, 2018, the D.C. Circuit Court of Appeals denied the requests for rehearing. On February 2, 2018, Sabal Trail filed a request with FERC for expedited issuance of its order on remand and reissuance of the CPCN. In the alternative, the pipeline requested that FERC issue a temporary emergency CPCN to allow for continued operations. On February 5, 2018, FERC issued the final SEIS. On February 6, 2018, FERC and the intervenors in this case each filed motions for stay with the D.C. Circuit Court to stay the court's mandate. On March 7, 2018, the D.C. Circuit Court of Appeals granted FERC and Sabal Trail's stay request. On March 14, 2018, FERC issued its final order on remand, which recertified the project. On August 10, 2018, FERC denied requests for rehearing of the final order on remand.

Constitution Pipeline Company, LLC

Duke Energy owns a 24 percent ownership interest in Constitution, which is accounted for as an equity method investment. Constitution is a natural gas pipeline project slated to transport natural gas supplies from the Marcellus supply region in northern Pennsylvania to major northeastern markets. The pipeline will be constructed and operated by Williams Partners L.P., which has a 41 percent ownership share. The remaining interest is held by Cabot Oil and Gas Corporation and WGL Holdings, Inc. Before the permitting delays discussed below, Duke Energy's total anticipated contributions were approximately $229 million. As a result of the permitting delays and project uncertainty, total anticipated contributions by Duke Energy can no longer be reasonably estimated. Since April 2016, with the actions of the New York State Department of Environmental Conservation (NYSDEC), Constitution stopped construction and discontinued capitalization of future development costs until the project's uncertainty is resolved.

In December 2014, Constitution received approval from the FERC to construct and operate the proposed pipeline. However, on April 22, 2016, the NYSDEC denied Constitution's application for a necessary water quality certification for the New York portion of the Constitution pipeline. Constitution filed legal actions in the U.S. Court of Appeals for the Second Circuit (U.S. Court of Appeals) challenging the legality and appropriateness of the NYSDEC's decision and on August 18, 2017, the petition was denied in part and dismissed in part. In September 2017, Constitution filed a petition for a rehearing of portions of the decision unrelated to the water quality certification, which was denied by the U.S. Court of Appeals. In January 2018, Constitution petitioned the Supreme Court of the United States to review the U.S. Court of Appeals decision, and on April 30, 2018, the Supreme Court denied Constitution's petition. In October 2017, Constitution filed a petition for declaratory order requesting FERC to find that the NYSDEC waived its rights to issue a Section 401 water quality certification by not acting on Constitution's application within a reasonable period of time as required by statute. This petition was based on precedent established by another pipeline's successful petition with FERC following a District of Columbia Circuit Court ruling. On January 11, 2018, FERC denied Constitution's petition. In February 2018, Constitution filed a rehearing request with FERC of its finding that the NYSDEC did not waive the Section 401 certification requirement. On July 19, 2018, FERC denied Constitution's rehearing request. Constitution is currently unable to approximate an in-service date for the project due to the NYSDEC's denial of the water quality certification. The Constitution partners remain committed to the project and are evaluating next steps to move the project forward. On June 25, 2018, Constitution filed with FERC a Request for Extension of Time until December 2, 2020, for construction of the project. On November 5, 2018, FERC issued an Order Granting Extension of Time.

See Notes 12 and 17 for additional information related to ownership interest and carrying value of the investment.

Potential Coal Plant Retirements

The Subsidiary Registrants periodically file IRPs with their state regulatory commissions. The IRPs provide a view of forecasted energy needs over a long term (10 to 20 years) and options being considered to meet those needs. IRPs filed by the Subsidiary Registrants included planning assumptions to potentially retire certain coal-fired generating facilities in North Carolina and Indiana earlier than their current estimated useful lives primarily because facilities do not have the requisite emission control equipment to meet regulatory requirements expected to apply in the near future. Duke Energy continues to evaluate the potential need to retire these coal-fired generating facilities earlier than the current estimated useful lives and plans to seek regulatory recovery for amounts that would not be otherwise recovered when any of these assets are retired.

The table below contains the net carrying value of generating facilities planned for retirement or included in recent IRPs as evaluated for potential retirement due to a lack of requisite environmental control equipment. Dollar amounts in the table below are included in Net property, plant and equipment on the Consolidated Balance Sheets as of December 31, 2018, and exclude capitalized asset retirement costs.

	Capacity (in MW)	Remaining Net Book Value (in millions)
Duke Energy Carolinas		
Allen Steam Station Units 1-3[(a)]	**585**	**$ 162**
Duke Energy Indiana		
Gallagher Units 2 and 4[(b)]	**280**	**121**
Total Duke Energy	**865**	**$ 283**

(a) Duke Energy Carolinas will retire Allen Steam Station Units 1 through 3 by December 31, 2024, as part of the resolution of a lawsuit involving alleged New Source Review violations.

(b) Duke Energy Indiana committed to either retire or stop burning coal at Gallagher Units 2 and 4 by December 31, 2022, as part of the 2016 settlement of Edwardsport IGCC matters.

Refer to the "Western Carolinas Modernization Plan" discussion above for details of Duke Energy Progress' planned retirements.

5. COMMITMENTS AND CONTINGENCIES

INSURANCE

General Insurance

The Duke Energy Registrants have insurance and reinsurance coverage either directly or through indemnification from Duke Energy's captive insurance company, Bison, and its affiliates, consistent with companies engaged in similar commercial operations with similar type properties. The Duke Energy Registrants' coverage includes (i) commercial general liability coverage for liabilities arising to third parties for bodily injury and property damage; (ii) workers' compensation; (iii) automobile liability coverage; and (iv) property coverage for all real and personal property damage. Real and personal property damage coverage excludes electric transmission and distribution lines, but includes damages arising from boiler and machinery breakdowns, earthquakes, flood damage and extra expense, but not outage or replacement power coverage. All coverage is subject to certain deductibles or retentions, sublimits, exclusions, terms and conditions common for companies with similar types of operations. The Duke Energy Registrants self-insure their electric transmission and distribution lines against loss due to storm damage and other natural disasters. As discussed further in Note 4, Duke Energy Florida maintains a storm damage reserve and has a regulatory mechanism to recover the cost of named storms on an expedited basis.

The cost of the Duke Energy Registrants' coverage can fluctuate from year to year reflecting claims history and conditions of the insurance and reinsurance markets.

In the event of a loss, terms and amounts of insurance and reinsurance available might not be adequate to cover claims and other expenses incurred. Uninsured losses and other expenses, to the extent not recovered by other sources, could have a material effect on the Duke Energy Registrants' results of operations, cash flows or financial position. Each company is responsible to the extent losses may be excluded or exceed limits of the coverage available.

Nuclear Insurance

Duke Energy Carolinas owns and operates McGuire and Oconee and operates and has a partial ownership interest in Catawba. McGuire and Catawba each have two reactors. Oconee has three reactors. The other joint owners of Catawba reimburse Duke Energy Carolinas for certain expenses associated with nuclear insurance per the Catawba joint owner agreements.

Duke Energy Progress owns and operates Robinson, Brunswick and Harris. Robinson and Harris each have one reactor. Brunswick has two reactors.

Duke Energy Florida owns Crystal River Unit 3, which permanently ceased operation in 2013 and reached a SAFSTOR condition in January 2018 after the successful transfer of all used nuclear fuel assemblies to an on-site dry cask storage facility.

In the event of a loss, terms and amounts of insurance available might not be adequate to cover property damage and other expenses incurred. Uninsured losses and other expenses, to the extent not recovered by other sources, could have a material effect on Duke Energy Carolinas', Duke Energy Progress' and Duke Energy Florida's results of operations, cash flows or financial position. Each company is responsible to the extent losses may be excluded or exceed limits of the coverage available.

Nuclear Liability Coverage

The Price-Anderson Act requires owners of nuclear reactors to provide for public nuclear liability protection per nuclear incident up to a maximum total financial protection liability. The maximum total financial protection liability, which is approximately $14.1 billion, is subject to change every five years for inflation and for the number of licensed reactors. Total nuclear liability coverage consists of a combination of private primary nuclear liability insurance coverage and a mandatory industry risk-sharing program to provide for excess nuclear liability coverage above the maximum reasonably available private primary coverage. The U.S. Congress could impose revenue-raising measures on the nuclear industry to pay claims.

Primary Liability Insurance

Duke Energy Carolinas and Duke Energy Progress have purchased the maximum reasonably available private primary nuclear liability insurance as required by law, which is $450 million per station. Duke Energy Florida has purchased $100 million primary nuclear liability insurance in compliance with the law.

Excess Liability Program

This program provides $13.6 billion of coverage per incident through the Price-Anderson Act's mandatory industrywide excess secondary financial protection program of risk pooling. This amount is the product of potential cumulative retrospective premium assessments of $138 million times the current 99 licensed commercial nuclear reactors in the U.S. Under this program, licensees could be assessed retrospective premiums to compensate for public nuclear liability damages in the event of a nuclear incident at any licensed facility in the U.S. Retrospective premiums may be assessed at a rate not to exceed $20.5 million per year per licensed reactor for each incident. The assessment may be subject to state premium taxes.

Nuclear Property and Accidental Outage Coverage

Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida are members of NEIL, an industry mutual insurance company, which provides property damage, nuclear accident decontamination and premature decommissioning insurance for each station for losses resulting from damage to its nuclear plants, either due to accidents or acts of terrorism. Additionally, NEIL provides accidental outage coverage for each station for losses in the event of a major accidental outage at an insured nuclear station.

Pursuant to regulations of the NRC, each company's property damage insurance policies provide that all proceeds from such insurance be applied, first, to place the plant in a safe and stable condition after a qualifying accident and second, to decontaminate the plant before any proceeds can be used for decommissioning, plant repair or restoration.

Losses resulting from acts of terrorism are covered as common occurrences, such that if terrorist acts occur against one or more commercial nuclear power plants insured by NEIL within a 12-month period, they would be treated as one event and the owners of the plants where the act occurred would share one full limit of liability. The full limit of liability is currently $3.2 billion. NEIL sublimits the total aggregate for all of their policies for non-nuclear terrorist events to approximately $1.8 billion.

Each nuclear facility has accident property damage, nuclear accident decontamination and premature decommissioning liability insurance from NEIL with limits of $1.5 billion, except for Crystal River Unit 3. Crystal River Unit 3's limit is $50 million and is on an actual cash value basis. All nuclear facilities except for Catawba and Crystal River Unit 3 also share an additional $1.25 billion nuclear accident insurance limit above their dedicated underlying limit. This shared additional excess limit is not subject to reinstatement in the event of a loss. Catawba has a dedicated $1.25 billion of additional nuclear accident insurance limit above its dedicated underlying limit. Catawba and Oconee also have an additional $750 million of non-nuclear accident property damage limit. All coverages are subject to sublimits and significant deductibles.

NEIL's Accidental Outage policy provides some coverage, such as business interruption, for losses in the event of a major accident property damage outage of a nuclear unit. Coverage is provided on a weekly limit basis after a significant waiting period deductible and at 100 percent of the available weekly limits for 52 weeks and 80 percent of the available weekly limits for the next 110 weeks. Coverage is provided until these available weekly periods are met where the accidental outage policy limit will not exceed $490 million for McGuire, Catawba and Harris, $476 million for Brunswick, $462 million for Oconee and $392 million for Robinson. NEIL sublimits the accidental outage recovery to the first 104 weeks of coverage not to exceed $328 million from non-nuclear accidental property damage. Coverage amounts decrease in the event more than one unit at a station is out of service due to a common accident. All coverages are subject to sublimits and significant deductibles.

Potential Retroactive Premium Assessments

In the event of NEIL losses, NEIL's board of directors may assess member companies' retroactive premiums of amounts up to 10 times their annual premiums for up to six years after a loss. NEIL has never exercised this assessment. The maximum aggregate annual retrospective premium obligations for Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida are $159 million, $97 million and $1 million, respectively. Duke Energy Carolinas' maximum assessment amount includes 100 percent of potential obligations to NEIL for jointly owned reactors. Duke Energy Carolinas would seek reimbursement from the joint owners for their portion of these assessment amounts.

ENVIRONMENTAL

The Duke Energy Registrants are subject to federal, state and local regulations regarding air and water quality, hazardous and solid waste disposal and other environmental matters. These regulations can be changed from time to time, imposing new obligations on the Duke Energy Registrants. The following environmental matters impact all of the Duke Energy Registrants.

Remediation Activities

In addition to the ARO recorded as a result of various environmental regulations, discussed in Note 9, the Duke Energy Registrants are responsible for environmental remediation at various sites. These include certain properties that are part of ongoing operations and sites formerly owned or used by Duke Energy entities. These sites are in various stages of investigation, remediation and monitoring. Managed in conjunction with relevant federal, state and local agencies, remediation activities vary based upon site conditions and location, remediation requirements, complexity and sharing of responsibility. If remediation activities involve joint and several liability provisions, strict liability, or cost recovery or contribution actions, the Duke Energy Registrants could potentially be held responsible for environmental impacts caused by other potentially responsible parties and may also benefit from insurance policies or contractual indemnities that cover some or all cleanup costs. Liabilities are recorded when losses become probable and are reasonably estimable. The total costs that may be incurred cannot be estimated because the extent of environmental impact, allocation among potentially responsible parties, remediation alternatives and/or regulatory decisions have not yet been determined at all sites. Additional costs associated with remediation activities are likely to be incurred in the future and could be significant. Costs are typically expensed as Operation, maintenance and other in the Consolidated Statements of Operations unless regulatory recovery of the costs is deemed probable.

The following tables contain information regarding reserves for probable and estimable costs related to the various environmental sites. These reserves are recorded in Accounts payable within Current Liabilities and Other within Other Noncurrent Liabilities on the Consolidated Balance Sheets.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Balance at December 31, 2015	$ 94	$ 10	$ 17	$ 3	$ 14	$ 54	$ 12
Provisions/adjustments	19	4	7	2	4	7	1
Cash reductions	(15)	(4)	(6)	(2)	(4)	(2)	(3)
Balance at December 31, 2016	98	10	18	3	14	59	10
Provisions/adjustments	8	3	3	2	2	3	(4)
Cash reductions	(25)	(3)	(6)	(2)	(4)	(15)	(1)
Balance at December 31, 2017	81	10	15	3	12	47	5
Provisions/adjustments	**26**	**3**	**2**	**3**	**(2)**	**21**	**1**
Cash reductions	**(30)**	**(2)**	**(6)**	**(2)**	**(4)**	**(20)**	**(1)**
Balance at December 31, 2018	**$ 77**	**$ 11**	**$ 11**	**$ 4**	**$ 6**	**$ 48**	**$ 5**

As of December 31, 2016, and October 31, 2016 and 2015, Piedmont's environmental reserve was $1 million. As of December 31, 2018, and 2017, the reserve was $2 million.

Additional losses in excess of recorded reserves that could be incurred for the stages of investigation, remediation and monitoring for environmental sites that have been evaluated at this time are not material except as presented in the table below.

(in millions)	
Duke Energy	**$ 46**
Duke Energy Carolinas	**17**
Duke Energy Ohio	**19**
Piedmont	**2**

North Carolina and South Carolina Ash Basins

In February 2014, a break in a stormwater pipe beneath an ash basin at Duke Energy Carolinas' retired Dan River Steam Station caused a release of ash basin water and ash into the Dan River. In July 2014, Duke Energy completed remediation work identified by the EPA and continues to cooperate with the EPA's civil enforcement process. The NCDEQ has historically assessed Duke Energy Carolinas and Duke Energy Progress with NOVs for violations that were most often resolved through satisfactory corrective actions and minor, if any, fines or penalties. Subsequent to the Dan River ash release, Duke Energy Carolinas and Duke Energy Progress have been served with a higher level of NOVs, including assessed penalties for violations at Sutton and Dan River Steam Station. Duke Energy Carolinas and Duke Energy Progress continue to resolve violations through corrective actions, and associated penalties related to existing unresolved NOVs are not expected to be material.

LITIGATION

Duke Energy Carolinas and Duke Energy Progress

Coal Ash Insurance Coverage Litigation

In March 2017, Duke Energy Carolinas and Duke Energy Progress filed a civil action in the North Carolina Superior Court against various insurance providers. The lawsuit seeks payment for coal ash-related liabilities covered by third-party liability insurance policies. The insurance policies were issued between 1971 and 1986 and provide third-party liability insurance for property damage. The civil action seeks damages for breach of contract and indemnification for costs arising from the Coal Ash Act and the EPA CCR rule at 15 coal-fired plants in North Carolina and South Carolina. On January 23, 2019, the court granted the parties' joint motion for a four month stay of the proceedings, until June 3, 2019, to allow the parties to discuss potential resolution. If the case is not fully resolved at that time, litigation will resume. The trial remains scheduled for August 2020. Duke Energy Carolinas and Duke Energy Progress cannot predict the outcome of this matter.

NCDEQ State Enforcement Actions

In the first quarter of 2013, SELC sent notices of intent to sue Duke Energy Carolinas and Duke Energy Progress related to alleged CWA violations from coal ash basins at two coal-fired power plants in North Carolina. The NCDEQ filed enforcement actions against Duke Energy Carolinas and Duke Energy Progress alleging violations of water discharge permits and North Carolina groundwater standards. The cases have been consolidated and are being heard before a single judge in the North Carolina Superior Court.

On August 16, 2013, the NCDEQ filed an enforcement action against Duke Energy Carolinas and Duke Energy Progress related to the remaining coal-fired power plants in North Carolina, alleging violations of the CWA and violations of the North Carolina groundwater standards. Both of these cases have been assigned to the judge handling the enforcement actions discussed above. SELC is representing several environmental groups who have been permitted to intervene in these cases.

The court issued orders in 2016 granting Motions for Partial Summary Judgment for seven of the 14 North Carolina plants with coal ash basins named in the enforcement actions. On February 13, 2017, the court issued an order denying motions for partial summary judgment brought by both the environmental groups and Duke Energy Carolinas and Duke Energy Progress for the remaining seven plants. On March 15, 2017, Duke Energy Carolinas and Duke Energy Progress filed a Notice of Appeal with the North Carolina Court of Appeals to challenge the trial court's order. The parties were unable to reach an agreement at mediation in April 2017 and submitted briefs to the trial court on remaining issues to be tried. On August 1, 2018, the Court of Appeals dismissed the appeal and the matter is proceeding before the trial court. No trial date has been scheduled. Duke Energy Carolinas and Duke Energy Progress cannot predict the outcome of this matter.

Federal Citizens Suits

On June 13, 2016, RRBA filed a federal citizen suit in the Middle District of North Carolina alleging unpermitted discharges to surface water and groundwater violations at the Mayo Plant. On August 19, 2016, Duke Energy Progress filed a Motion to Dismiss. On April 26, 2017, the court entered an order dismissing four of the claims in the federal citizen suit. Two claims relating to alleged violations of NPDES permit provisions survived the motion to dismiss, and Duke Energy Progress filed its response on May 10, 2017. Duke Energy Progress and RRBA each filed motions for summary judgment on March 23, 2018. The court has not yet ruled on these motions.

On May 16, 2017, RRBA filed a federal citizen suit in the U.S. District Court for the Middle District of North Carolina, which asserts two claims relating to alleged violations of NPDES permit provisions at the Roxboro Plant and one claim relating to the use of nearby water bodies. Duke Energy Progress and RRBA each filed motions for summary judgment on April 17, 2018, and the court has not yet ruled on these motions.

On May 8, 2018, on motion from Duke Energy Progress, the court ordered trial in both of the above matters to be consolidated. Trial is currently scheduled to begin July 15, 2019.

On June 20, 2017, RRBA filed a federal citizen suit in the U.S. District Court for the Middle District of North Carolina challenging the closure plans at the Mayo Plant under the EPA CCR Rule. Duke Energy Progress filed a motion to dismiss, which was granted by the court on March 30, 2018. RRBA had until April 30, 2018, to file an appeal to the Fourth Circuit but did not do so.

On August 2, 2017, RRBA filed a federal citizen suit in the U.S. District Court for the Middle District of North Carolina challenging the closure plans at the Roxboro Plant under the EPA CCR Rule. Duke Energy Progress filed a motion to dismiss on October 2, 2017, which was granted by the court on May 29, 2018. RRBA had until June 28, 2018, to file an appeal to the Fourth Circuit but did not do so.

On December 5, 2017, various parties filed a federal citizen suit in the U.S. District Court for the Middle District of North Carolina for alleged violations at Duke Energy Carolinas' Belews Creek under the CWA. Duke Energy Carolinas' answer to the complaint was filed on August 27, 2018. On October 10, 2018, Duke Energy Carolinas filed Motions to Dismiss for lack of standing, Motion for Judgment on the Pleadings and Motion to Stay Discovery. On January 9, 2019, the court entered an order denying Duke Energy Carolinas' motion to stay discovery. There has been no ruling on the other pending motions.

Duke Energy Carolinas and Duke Energy Progress cannot predict the outcome of these matters.

Groundwater Contamination Claims

Beginning in May 2015, a number of residents living in the vicinity of the North Carolina facilities with ash basins received letters from the NCDEQ advising them not to drink water from the private wells on their land tested by the NCDEQ as the samples were found to have certain substances at levels higher than the criteria set by the DHHS. Results of CSAs testing performed by Duke Energy under the Coal Ash Act have been consistent with historical data provided to state regulators over many years. The DHHS and NCDEQ sent follow-up letters on October 15, 2015, to residents near coal ash basins who have had their wells tested, stating that private well samplings at a considerable distance from coal ash basins, as well as some municipal water supplies, contain similar levels of vanadium and hexavalent chromium, which led investigators to believe these constituents are naturally occurring. In March 2016, DHHS rescinded the advisories.

Duke Energy Carolinas and Duke Energy Progress have received formal demand letters from residents near Duke Energy Carolinas' and Duke Energy Progress' coal ash basins. The residents claim damages for nuisance and diminution in property value, among other things. The parties held three days of mediation discussions, which ended at impasse. On January 6, 2017, Duke Energy Carolinas and Duke Energy Progress received the plaintiffs' notice of their intent to file suits should the matter not settle. The NCDEQ preliminarily approved Duke Energy's permanent water solution plans on January 13, 2017, and as a result shortly thereafter, Duke Energy issued a press release, providing additional details regarding the homeowner compensation package. This package consists of three components: (i) a $5,000 goodwill payment to each eligible well owner to support the transition to a new water supply, (ii) where a public water supply is available and selected by the eligible well owner, a stipend to cover 25 years of water bills and (iii) the Property Value Protection Plan. The Property Value Protection Plan is a program offered by Duke Energy designed to guarantee eligible plant neighbors the fair market value of their residential property should they decide to sell their property during the time that the plan is offered. Payments are being made and the remaining reserves are not material.

On August 23, 2017, a class-action suit was filed in Wake County Superior Court, North Carolina, against Duke Energy Carolinas and Duke Energy Progress on behalf of certain property owners living near coal ash impoundments at Allen, Asheville, Belews Creek, Buck, Cliffside, Lee, Marshall, Mayo and Roxboro. The class is defined as those who are well-eligible under the Coal Ash Act or those to whom Duke Energy has promised a permanent replacement water supply and seeks declaratory and injunctive relief, along with compensatory damages. Plaintiffs allege that Duke Energy's improper maintenance of coal ash impoundments caused harm, particularly through groundwater contamination. Despite NCDEQ's preliminary approval, Plaintiffs contend that Duke Energy's proposed permanent water solutions plan fails to comply with the Coal Ash Act. On September 28, 2017, Duke Energy Carolinas and Duke Energy Progress filed a Motion to Dismiss and Motion to Strike the class designation. The parties entered into a Settlement Agreement on January 24, 2018, which resulted in the dismissal of the underlying class action on January 25, 2018.

On September 14, 2017, a complaint was filed against Duke Energy Progress in New Hanover County Superior Court by a group of homeowners residing approximately 1 mile from Duke Energy Progress' Sutton Steam Plant. The homeowners allege that coal ash constituents have been migrating from ash impoundments at Sutton into their groundwater for decades and that in 2015, Duke Energy Progress discovered these releases of coal ash, but failed to notify any officials or neighbors and failed to take remedial action. The homeowners claim unspecified physical and mental injuries as a result of consuming their well water and seek actual damages for personal injury, medical monitoring and punitive damages. On March 6, 2018, Plaintiffs' counsel voluntarily dismissed the action without prejudice.

Duke Energy Carolinas

Asbestos-related Injuries and Damages Claims

Duke Energy Carolinas has experienced numerous claims for indemnification and medical cost reimbursement related to asbestos exposure. These claims relate to damages for bodily injuries alleged to have arisen from exposure to or use of asbestos in connection with construction and maintenance activities conducted on its electric generation plants prior to 1985. As of December 31, 2018, there were 164 asserted claims for non-malignant cases with the cumulative relief sought of up to $42 million and 87 asserted claims for malignant cases with the cumulative relief sought of up to $21 million. Based on Duke Energy Carolinas' experience, it is expected that the ultimate resolution of most of these claims likely will be less than the amount claimed.

Duke Energy Carolinas has recognized asbestos-related reserves of $630 million and $489 million at December 31, 2018, and 2017, respectively. These reserves are classified in Other within Other Noncurrent Liabilities and Other within Current Liabilities on the Consolidated Balance Sheets. These reserves are based upon Duke Energy Carolinas' best estimate for current and future asbestos claims through 2038 and are recorded on an undiscounted basis. In light of the uncertainties inherent in a longer-term forecast, management does not believe they can reasonably estimate the indemnity and medical costs that might be incurred after 2038 related to such potential claims. It is possible Duke Energy Carolinas may incur asbestos liabilities in excess of the recorded reserves.

Duke Energy Carolinas has third-party insurance to cover certain losses related to asbestos-related injuries and damages above an aggregate self-insured retention. Duke Energy Carolinas' cumulative payments began to exceed the self-insurance retention in 2008. Future payments up to the policy limit will be reimbursed by the third-party insurance carrier. The insurance policy limit for potential future insurance recoveries indemnification and medical cost claim payments is $764 million in excess of the self-insured retention. Receivables for insurance recoveries were $739 million and $585 million at December 31, 2018, and 2017, respectively. These amounts are classified in Other within Other Noncurrent Assets and Receivables within Current Assets on the Consolidated Balance Sheets. Duke Energy Carolinas is not aware of any uncertainties regarding the legal sufficiency of insurance claims. Duke Energy Carolinas believes the insurance recovery asset is probable of recovery as the insurance carrier continues to have a strong financial strength rating.

Duke Energy Progress and Duke Energy Florida

Spent Nuclear Fuel Matters

On October 16, 2014, Duke Energy Progress and Duke Energy Florida sued the U.S. in the U.S. Court of Federal Claims. The lawsuit claimed the Department of Energy breached a contract in failing to accept spent nuclear fuel under the Nuclear Waste Policy Act of 1982 and asserted damages for the cost of on-site storage. Duke Energy Progress and Duke Energy Florida asserted damages for the period January 1, 2011, through December 31, 2013, of $48 million and $25 million, respectively. On November 17, 2017, the Court awarded Duke Energy Progress and Duke Energy Florida $48 million and $21 million, respectively, subject to appeal. No appeals were filed and Duke Energy Progress and Duke Energy Florida recognized the recoveries in the first quarter of 2018. Claims for all periods through 2013 have been resolved. On June 22, 2018, Duke Energy Progress and Duke Energy Florida filed a complaint for damages incurred for 2014 through first quarter 2018.

Duke Energy Progress

Gypsum Supply Agreements Matter

On June 30, 2017, CertainTeed filed a declaratory judgment action against Duke Energy Progress in the North Carolina Business Court relating to a gypsum supply agreement. In its complaint, CertainTeed sought an order from the court declaring that the minimum amount of gypsum Duke Energy Progress must provide to CertainTeed under the supply agreement was 50,000 tons per month through 2029. Trial in this matter was completed on July 16, 2018. On August 29, 2018, the court issued an order and opinion finding that Duke Energy Progress is required to supply 50,000 tons of gypsum/month, but that CertainTeed's sole remedy for Duke Energy Progress' long-term discontinuance under the agreement is liquidated damages. On November 14, 2018, the parties reached a settlement agreement. The amount owed under the liquidated damages provision is approximately $90 million on an undiscounted basis over 10 years. Approximately $3 million was paid in 2018. As of December 31, 2018, $9 million is recorded in Accounts payable within Current Liabilities and $63 million in Other within Other Noncurrent Liabilities on the Consolidated Balance Sheets. The liability is recorded on a discounted basis at a rate of approximately 4 percent. These costs are probable of recovery from customers and are recorded in Regulatory Assets within Other Noncurrent Assets on the Consolidated Balance Sheets.

Duke Energy Florida

Fluor Contract Litigation

On January 29, 2019, Fluor filed a breach of contract lawsuit in the U.S. District Court for the Middle District of Florida against Duke Energy Florida related to an EPC agreement for the combined-cycle natural gas plant in Citrus County, Florida. Fluor filed an amended complaint on February, 13, 2019. Fluor's multicount complaint seeks civil, statutory and contractual remedies related to Duke Energy Florida's $67 million draw in early 2019, on Fluor's letter of credit and offset of invoiced amounts. Duke Energy Florida is attempting to recover from Fluor $110 million in additional costs incurred by Duke Energy Florida. Duke Energy Florida cannot predict the outcome of this matter. See Note 4 for additional information.

Class-Action Lawsuit

On February 22, 2016, a lawsuit was filed in the U.S. District Court for the Southern District of Florida on behalf of a class of Duke Energy Florida and FP&L's customers in Florida. The suit alleges the State of Florida's NCRS are unconstitutional and pre-empted by federal law. Plaintiffs claim they are entitled to repayment of all money paid by customers of Duke Energy Florida and FP&L as a result of the NCRS, as well as an injunction against any future charges under those statutes. The constitutionality of the NCRS has been challenged unsuccessfully in a number of prior cases on alternative grounds. Duke Energy Florida and FP&L filed motions to dismiss the complaint on May 5, 2016. On September 21, 2016, the Court granted the motions to dismiss with prejudice. Plaintiffs filed a motion for reconsideration, which was denied. On January 4, 2017, plaintiffs filed a notice of appeal to the Eleventh Circuit U.S. Court of Appeals (Eleventh Circuit). On July 11, 2018, the Eleventh Circuit affirmed the U.S. District Court's dismissal of the lawsuit. The deadline to file a petition for cert was October 9, 2018, and no petition was filed; therefore, the dismissal of the lawsuit is final.

Westinghouse Contract Litigation

On March 28, 2014, Duke Energy Florida filed a lawsuit against Westinghouse in the U.S. District Court for the Western District of North Carolina. The lawsuit seeks recovery of $54 million in milestone payments in excess of work performed under an EPC for Levy as well as a determination by the court of the amounts due to Westinghouse as a result of the termination of an EPC contract. Duke Energy Florida recognized an exit obligation as a result of the termination of the EPC. On March 31, 2014, Westinghouse filed a separate lawsuit against Duke Energy Florida in U.S. District Court for the Western District of Pennsylvania alleging damages under the same EPC contract in excess of $510 million for engineering and design work, costs to end supplier contracts and an alleged termination fee. On June 9, 2014, the judge in the North Carolina case ruled that the litigation will proceed in the Western District of North Carolina.

On July 11, 2016, Duke Energy Florida and Westinghouse filed separate Motions for Summary Judgment. On September 29, 2016, the court issued its ruling, granting Westinghouse a $30 million termination fee claim and dismissing Duke Energy Florida's $54 million refund claim. Westinghouse's claim for termination costs continued to trial. Following a trial on the matter, the court issued an order in December 2016 denying Westinghouse's claim for termination costs and reaffirming its earlier ruling in favor of Westinghouse on the $30 million termination fee. Judgment was entered against Duke Energy Florida in the amount of approximately $34 million, which includes prejudgment interest. Westinghouse appealed the trial court's order to the Fourth Circuit and Duke Energy Florida cross-appealed.

On March 29, 2017, Westinghouse filed Chapter 11 bankruptcy in the Southern District of New York, which automatically stayed the appeal. On May 23, 2017, the bankruptcy court entered an order lifting the stay with respect to the appeal. Westinghouse and Duke Energy Florida executed a settlement agreement resolving this matter on April 5, 2018. The bankruptcy court approved the settlement and Duke Energy Florida paid approximately $34 million to Westinghouse in July 2018 pursuant to this agreement. At the request of the parties, the Fourth Circuit has dismissed the appeal.

MGP Cost Recovery Action

On December 30, 2011, Duke Energy Florida filed a lawsuit against FirstEnergy to recover investigation and remediation costs incurred by Duke Energy Florida in connection with the restoration of two former MGP sites in Florida. Duke Energy Florida alleged that FirstEnergy, as the successor to Associated Gas & Electric Co., owes past and future contribution and response costs of up to $43 million for the investigation and remediation of MGP sites. On December 6, 2016, the trial court entered judgment against Duke Energy Florida in the case. In January 2017, Duke Energy Florida appealed the decision to the U.S. Court of Appeals for the Sixth Circuit, which affirmed the trial court's ruling on April 10, 2018. The dismissal of the lawsuit is therefore final.

Other Litigation and Legal Proceedings

The Duke Energy Registrants are involved in other legal, tax and regulatory proceedings arising in the ordinary course of business, some of which involve significant amounts. The Duke Energy Registrants believe the final disposition of these proceedings will not have a material effect on their results of operations, cash flows or financial position.

The table below presents recorded reserves based on management's best estimate of probable loss for legal matters, excluding asbestos-related reserves, the CertainTeed liquidated damages obligation and the exit obligation in 2017 related to the termination of an EPC contract. Reserves are classified on the Consolidated Balance Sheets in Other within Other Noncurrent Liabilities and Other within Current Liabilities. The reasonably possible range of loss in excess of recorded reserves is not material, other than as described above.

	December 31,	
(in millions)	2018	2017
Reserves for Legal Matters		
Duke Energy	**$ 65**	$ 88
Duke Energy Carolinas	**9**	30
Progress Energy	**54**	55
Duke Energy Progress	**12**	13
Duke Energy Florida	**24**	24
Piedmont	**1**	2

OTHER COMMITMENTS AND CONTINGENCIES

General

As part of their normal business, the Duke Energy Registrants are party to various financial guarantees, performance guarantees and other contractual commitments to extend guarantees of credit and other assistance to various subsidiaries, investees and other third parties. These guarantees involve elements of performance and credit risk, which are not fully recognized on the Consolidated Balance Sheets and have unlimited maximum potential payments. However, the Duke Energy Registrants do not believe these guarantees will have a material effect on their results of operations, cash flows or financial position.

Purchase Obligations

Purchased Power

Duke Energy Progress, Duke Energy Florida and Duke Energy Ohio have ongoing purchased power contracts, including renewable energy contracts, with other utilities, wholesale marketers, co-generators and qualified facilities. These purchased power contracts generally provide for capacity and energy payments. In addition, Duke Energy Progress and Duke Energy Florida have various contracts to secure transmission rights.

The following table presents executory purchased power contracts with terms exceeding one year, excluding contracts classified as leases.

		Minimum Purchase Amount at December 31, 2018						
(in millions)	Contract Expiration	2019	2020	2021	2022	2023	Thereafter	Total
Duke Energy Progress[(a)]	2022-2031	$ 51	$ 52	$ 53	$ 30	$ 25	$ 215	$ 426
Duke Energy Florida[(b)]	2021-2025	363	380	365	363	382	361	2,214
Duke Energy Ohio[(c)(d)]	2020-2022	146	117	53	11	—	—	327

(a) Contracts represent 100 percent of net plant output.
(b) Contracts represent between 81 percent and 100 percent of net plant output.
(c) Contracts represent between 1 percent and 8 percent of net plant output.
(d) Excludes PPA with OVEC. See Note 17 for additional information.

Gas Supply and Capacity Contracts

Duke Energy Ohio and Piedmont routinely enter into long-term natural gas supply commodity and capacity commitments and other agreements that commit future cash flows to acquire services needed in their businesses. These commitments include pipeline and storage capacity contracts and natural gas supply contracts to provide service to customers. Costs arising from the natural gas supply commodity and capacity commitments, while significant, are pass-through costs to customers and are generally fully recoverable through the fuel adjustment or PGA procedures and prudence reviews in North Carolina and South Carolina and under the Tennessee Incentive Plan in Tennessee. In the Midwest, these costs are recovered via the Gas Cost Recovery Rate in Ohio or the Gas Cost Adjustment Clause in Kentucky. The time periods for fixed payments under pipeline and storage capacity contracts are up to 16 years. The time periods for fixed payments under natural gas supply contracts are up to seven years. The time period for the natural gas supply purchase commitments is up to 12 years.

Certain storage and pipeline capacity contracts require the payment of demand charges that are based on rates approved by the FERC in order to maintain rights to access the natural gas storage or pipeline capacity on a firm basis during the contract term. The demand charges that are incurred in each period are recognized in the Consolidated Statements of Operations and Comprehensive Income as part of natural gas purchases and are included in Cost of natural gas.

The following table presents future unconditional purchase obligations under natural gas supply and capacity contracts as of December 31, 2018.

(in millions)	Duke Energy	Duke Energy Ohio	Piedmont
2019	$ 314	$ 38	$ 276
2020	287	30	257
2021	255	29	226
2022	225	11	214
2023	148	4	144
Thereafter	1,067	—	1,067
Total	$ 2,296	$ 112	$ 2,184

Operating and Capital Lease Commitments

The Duke Energy Registrants lease office buildings, railcars, vehicles and other property and equipment with various terms and expiration dates. Additionally, Duke Energy Carolinas and Duke Energy Progress have capital leases related to firm natural gas pipeline transportation capacity. Duke Energy Progress and Duke Energy Florida have entered into certain purchased power agreements, which are classified as leases. Consolidated capitalized lease obligations are classified as Long-Term Debt or Other within Current Liabilities on the Consolidated Balance Sheets. Amortization of assets recorded under capital leases is included in Depreciation and amortization and Fuel used in electric generation and purchased power on the Consolidated Statements of Operations.

The following tables present rental expense for operating leases. These amounts are included in Operation, maintenance and other and Fuel used in electric generation and purchased power on the Consolidated Statements of Operations.

	Years Ended December 31,		
(in millions)	2018	2017	2016
Duke Energy	$ 268	$ 241	$ 242
Duke Energy Carolinas	49	44	45
Progress Energy	143	130	140
Duke Energy Progress	75	75	68
Duke Energy Florida	68	55	72
Duke Energy Ohio	13	15	16
Duke Energy Indiana	21	23	23

	Years Ended December 31,		Two Months Ended December 31,	Year Ended October 31,
(in millions)	2018	2017	2016	2016
Piedmont	$ 11	$ 7	$ 1	$ 5

The following table presents future minimum lease payments under operating leases, which at inception had a non-cancelable term of more than one year.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
2019	$ 239	$ 33	$ 97	$ 49	$ 48	$ 2	$ 6	$ 5
2020	219	29	90	46	44	2	5	5
2021	186	19	79	37	42	2	4	5
2022	170	19	76	34	42	2	4	5
2023	160	17	77	35	42	2	5	6
Thereafter	1,017	68	455	314	141	23	66	11
Total	$ 1,991	$ 185	$ 874	$ 515	$ 359	$ 33	$ 90	$ 37

The following table presents future minimum lease payments under capital leases.

	December 31, 2018						
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
2019	$ 170	$ 20	$ 45	$ 20	$ 25	$ 2	$ 1
2020	174	20	46	21	25	—	1
2021	177	15	45	20	25	—	1
2022	165	15	45	21	24	—	1
2023	165	15	45	21	24	—	1
Thereafter	577	204	230	209	21	—	27
Minimum annual payments	1,428	289	456	312	144	2	32
Less: amount representing interest	(487)	(180)	(205)	(175)	(30)	—	(22)
Total	$ 941	$ 109	$ 251	$ 137	$ 114	$ 2	$ 10

6. DEBT AND CREDIT FACILITIES

Summary of Debt and Related Terms

The following tables summarize outstanding debt.

		December 31, 2018							
(in millions)	Weighted Average Interest Rate	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Unsecured debt, maturing 2019-2078	4.26%	$ 20,955	$ 1,150	$ 3,800	$ 50	$ 350	$ 1,000	$ 408	$ 2,150
Secured debt, maturing 2020-2037	3.69%	4,297	450	1,703	300	1,403	—	—	—
First mortgage bonds, maturing 2019-2048[a]	4.32%	25,628	8,759	13,100	7,574	5,526	1,099	2,670	—
Capital leases, maturing 2019-2051[b]	5.06%	941	109	251	137	114	2	10	—
Tax-exempt bonds, maturing 2019-2041[c]	3.40%	941	243	48	48	—	77	572	—
Notes payable and commercial paper[d]	2.73%	4,035	—	—	—	—	—	—	—
Money pool/intercompany borrowings		—	739	1,385	444	108	299	317	198
Fair value hedge carrying value adjustment		5	5	—	—	—	—	—	—
Unamortized debt discount and premium, net[e]		1,434	(23)	(29)	(15)	(11)	(31)	(8)	(1)
Unamortized debt issuance costs[f]		(297)	(54)	(112)	(40)	(61)	(7)	(20)	(11)
Total debt	4.13%	$ 57,939	$ 11,378	$ 20,146	$ 8,498	$ 7,429	$ 2,439	$ 3,949	$ 2,336
Short-term notes payable and commercial paper		(3,410)	—	—	—	—	—	—	—
Short-term money pool/intercompany borrowings		—	(439)	(1,235)	(294)	(108)	(274)	(167)	(198)
Current maturities of long-term debt[g]		(3,406)	(6)	(1,672)	(603)	(270)	(551)	(63)	(350)
Total long-term debt[g]		$ 51,123	$ 10,933	$ 17,239	$ 7,601	$ 7,051	$ 1,614	$ 3,719	$ 1,788

(a) Substantially all electric utility property is mortgaged under mortgage bond indentures.
(b) Duke Energy includes $63 million and $531 million of capital lease purchase accounting adjustments related to Duke Energy Progress and Duke Energy Florida, respectively, related to power purchase agreements that are not accounted for as capital leases in their respective financial statements because of grandfathering provisions in GAAP.
(c) Substantially all tax-exempt bonds are secured by first mortgage bonds, letters of credit or the Master Credit Facility.
(d) Includes $625 million that was classified as Long-Term Debt on the Consolidated Balance Sheets due to the existence of long-term credit facilities that backstop these commercial paper balances, along with Duke Energy's ability and intent to refinance these balances on a long-term basis. The weighted average days to maturity for Duke Energy's commercial paper program was 16 days.
(e) Duke Energy includes $1,380 million and $156 million in purchase accounting adjustments related to Progress Energy and Piedmont, respectively.
(f) Duke Energy includes $41 million in purchase accounting adjustments primarily related to the merger with Progress Energy.
(g) Refer to Note 17 for additional information on amounts from consolidated VIEs.

	December 31, 2017								
(in millions)	Weighted Average Interest Rate	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Unsecured debt, maturing 2018-2073	4.17%	$ 20,409	$ 1,150	$ 3,950	$ —	$ 550	$ 900	$ 411	$ 2,050
Secured debt, maturing 2018-2037	3.15%	4,458	450	1,757	300	1,457	—	—	—
First mortgage bonds, maturing 2018-2047[a]	4.51%	23,529	7,959	11,801	6,776	5,025	1,100	2,669	—
Capital leases, maturing 2018-2051[b]	4.55%	1,000	61	269	139	129	5	11	—
Tax-exempt bonds, maturing 2019-2041[c]	3.23%	941	243	48	48	—	77	572	—
Notes payable and commercial paper[d]	1.57%	2,788	—	—	—	—	—	—	—
Money pool/intercompany borrowings		—	404	955	390	—	54	311	364
Fair value hedge carrying value adjustment		6	6	—	—	—	—	—	—
Unamortized debt discount and premium, net[e]		1,582	(19)	(30)	(16)	(10)	(33)	(9)	(1)
Unamortized debt issuance costs[f]		(271)	(47)	(108)	(40)	(56)	(7)	(21)	(12)
Total debt	4.09%	$ 54,442	$ 10,207	$ 18,642	$ 7,597	$ 7,095	$ 2,096	$ 3,944	$ 2,401
Short-term notes payable and commercial paper		(2,163)	—	—	—	—	—	—	—
Short-term money pool/intercompany borrowings		—	(104)	(805)	(240)	—	(29)	(161)	(364)
Current maturities of long-term debt[g]		(3,244)	(1,205)	(771)	(3)	(768)	(3)	(3)	(250)
Total long-term debt[g]		$ 49,035	$ 8,898	$ 17,066	$ 7,354	$ 6,327	$ 2,064	$ 3,780	$ 1,787

(a) Substantially all electric utility property is mortgaged under mortgage bond indentures.
(b) Duke Energy includes $81 million and $603 million of capital lease purchase accounting adjustments related to Duke Energy Progress and Duke Energy Florida, respectively, related to power purchase agreements that are not accounted for as capital leases in their respective financial statements because of grandfathering provisions in GAAP.
(c) Substantially all tax-exempt bonds are secured by first mortgage bonds, letters of credit or the Master Credit Facility.
(d) Includes $625 million that was classified as Long-Term Debt on the Consolidated Balance Sheets due to the existence of long-term credit facilities that backstop these commercial paper balances, along with Duke Energy's ability and intent to refinance these balances on a long-term basis. The weighted average days to maturity for Duke Energy's commercial paper programs was 14 days.
(e) Duke Energy includes $1,509 million and $176 million purchase accounting adjustments related to the mergers with Progress Energy and Piedmont, respectively.
(f) Duke Energy includes $47 million in purchase accounting adjustments primarily related to the merger with Progress Energy.
(g) Refer to Note 17 for additional information on amounts from consolidated VIEs.

Current Maturities of Long-Term Debt

The following table shows the significant components of Current maturities of Long-Term Debt on the Consolidated Balance Sheets. The Duke Energy Registrants currently anticipate satisfying these obligations with cash on hand and proceeds from additional borrowings.

(in millions)	Maturity Date	Interest Rate	December 31, 2018
Unsecured Debt			
Progress Energy	March 2019	7.050%	$ 450
Duke Energy (Parent)	September 2019	5.050%	500
Piedmont	September 2019	3.155% [b]	350
Duke Energy Kentucky	October 2019	4.65%	100
Progress Energy	December 2019	4.875%	350
First Mortgage Bonds			
Duke Energy Progress	January 2019	5.300%	600
Duke Energy Ohio	April 2019	5.450%	450
Other[a]			606
Current maturities of long-term debt			$ 3,406

(a) Includes capital lease obligations, amortizing debt and small bullet maturities.
(b) Debt has a floating interest rate.

Maturities and Call Options

The following table shows the annual maturities of long-term debt for the next five years and thereafter. Amounts presented exclude short-term notes payable and commercial paper and money pool borrowings for the Subsidiary Registrants.

	December 31, 2018							
(in millions)	Duke Energy[a]	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
2019	$ 3,408	$ 6	$ 1,674	$ 603	$ 270	552	$ 63	$ 350
2020	3,765	907	926	354	572	—	503	—
2021	4,803	503	2,004	904	600	50	70	160
2022	2,745	353	1,032	505	77	—	94	—
2023	3,375	1,303	535	456	79	350	153	45
Thereafter	35,288	7,940	12,880	5,437	5,793	1,251	2,925	1,595
Total long-term debt, including current maturities	$ 53,384	$ 11,012	$ 19,051	$ 8,259	$ 7,391	$ 2,203	$ 3,808	$ 2,150

(a) Excludes $1,578 million in purchase accounting adjustments related to the Progress Energy merger and the Piedmont acquisition.

The Duke Energy Registrants have the ability under certain debt facilities to call and repay the obligation prior to its scheduled maturity. Therefore, the actual timing of future cash repayments could be materially different than as presented above.

Short-Term Obligations Classified as Long-Term Debt

Tax-exempt bonds that may be put to the Duke Energy Registrants at the option of the holder and certain commercial paper issuances and money pool borrowings are classified as Long-Term Debt on the Consolidated Balance Sheets. These tax-exempt bonds, commercial paper issuances and money pool borrowings, which are short-term obligations by nature, are classified as long term due to Duke Energy's intent and ability to utilize such borrowings as long-term financing. As Duke Energy's Master Credit Facility and other bilateral letter of credit agreements have non-cancelable terms in excess of one year as of the balance sheet date, Duke Energy has the ability to refinance these short-term obligations on a long-term basis. The following tables show short-term obligations classified as long-term debt.

	December 31, 2018				
(in millions)	**Duke Energy**	**Duke Energy Carolinas**	**Duke Energy Progress**	**Duke Energy Ohio**	**Duke Energy Indiana**
Tax-exempt bonds	**$ 312**	**$ —**	**$ —**	**$ 27**	**$ 285**
Commercial paper[(a)]	**625**	**300**	**150**	**25**	**150**
Total	**$ 937**	**$ 300**	**$ 150**	**$ 52**	**$ 435**

	December 31, 2017				
(in millions)	**Duke Energy**	**Duke Energy Carolinas**	**Duke Energy Progress**	**Duke Energy Ohio**	**Duke Energy Indiana**
Tax-exempt bonds	$ 312	$ —	$ —	$ 27	$ 285
Commercial paper[(a)]	625	300	150	25	150
Total	$ 937	$ 300	$ 150	$ 52	$ 435

(a) Progress Energy amounts are equal to Duke Energy Progress amounts.

Summary of Significant Debt Issuances

In January 2019, Duke Energy Ohio issued $800 million of first mortgage bonds. The issuance was split between a $400 million, 10-year tranche at 3.65 percent and a $400 million, 30-year tranche at 4.30 percent. The net proceeds will be used to refinance $450 million of Duke Energy Ohio bonds maturing in April 2019, to pay down short-term debt and for general corporate purposes.

The following tables summarize significant debt issuances (in millions).

			Year Ended December 31, 2018				
Issuance Date	Maturity Date	Interest Rate	Duke Energy	Duke Energy (Parent)	Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida
Unsecured Debt							
March 2018[a]	April 2025	3.950%	$ 250	$ 250	$ —	$ —	$ —
May 2018[b]	May 2021	3.114%	500	500	—	—	—
September 2018[c]	September 2078	5.625%	500	500	—	—	—
First Mortgage Bonds							
March 2018[d]	March 2023	3.050%	500	—	500	—	—
March 2018[d]	March 2048	3.950%	500	—	500	—	—
June 2018[e]	July 2028	3.800%	600	—	—	—	600
June 2018[e]	July 2048	4.200%	400	—	—	—	400
August 2018[f]	September 2023	3.375%	300	—	—	300	—
August 2018[f]	September 2028	3.700%	500	—	—	500	—
November 2018[g]	May 2022	3.350%	350	—	350	—	—
November 2018[g]	November 2028	3.950%	650	—	650	—	—
Total issuances			$ 5,050	$ 1,250	$ 2,000	$ 800	$ 1,000

(a) Debt issued to pay down short-term debt.
(b) Debt issued to pay down short-term debt. Debt issuance has a floating debt rate.
(c) Callable after September 2023 at par. Junior subordinated hybrid debt issued to pay down short-term debt and for general corporate purposes.
(d) Debt issued to repay at maturity a $300 million first mortgage bond due April 2018, pay down intercompany short-term debt and for general corporate purposes.
(e) Debt issued to repay a portion of intercompany short-term debt under the money pool borrowing arrangement and for general corporate purposes.
(f) Debt issued to repay short-term debt and for general corporate purposes.
(g) Debt issued to fund eligible green energy projects, including zero-carbon solar and energy storage, in the Carolinas.

			Year Ended December 31, 2017					
Issuance Date	Maturity Date	Interest Rate	Duke Energy	Duke Energy (Parent)	Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio
Unsecured Debt								
April 2017[a]	April 2025	3.364%	$ 420	$ 420	$ —	$ —	$ —	$ —
June 2017[b]	June 2020	2.100%	330	330	—	—	—	—
August 2017[c]	August 2022	2.400%	500	500	—	—	—	—
August 2017[c]	August 2027	3.150%	750	750	—	—	—	—
August 2017[c]	August 2047	3.950%	500	500	—	—	—	—
December 2017[d]	December 2019 [k]	2.100%	400	—	—	—	400	—
Secured Debt								
February 2017[e]	June 2034	4.120%	587	—	—	—	—	—
August 2017[f]	December 2036	4.110%	233	—	—	—	—	—
First Mortgage Bonds								
January 2017[g]	January 2020	1.850%	250	—	—	—	250	—
January 2017[g]	January 2027	3.200%	650	—	—	—	650	—
March 2017[h]	June 2046	3.700%	100	—	—	—	—	100
September 2017[i]	September 2020	1.500% [l]	300	—	—	300	—	—
September 2017[i]	September 2047	3.600%	500	—	—	500	—	—
November 2017[j]	December 2047	3.700%	550	—	550	—	—	—
Total issuances			$ 6,070	$ 2,500	$ 550	$ 800	$ 1,300	$ 100

(a) Proceeds were used to refinance $400 million of unsecured debt at maturity and to repay a portion of outstanding commercial paper.
(b) Debt issued to repay a portion of outstanding commercial paper.
(c) Debt issued to repay at maturity $700 million of unsecured debt, to repay outstanding commercial paper and for general corporate purposes.
(d) Debt issued to fund storm restoration costs related to Hurricane Irma and for general corporate purposes.
(e) Portfolio financing of four Texas and Oklahoma wind facilities. Duke Energy pledged substantially all of the assets of these wind facilities and is nonrecourse to Duke Energy. Proceeds were used to reimburse Duke Energy for a portion of previously funded construction expenditures.
(f) Portfolio financing of eight solar facilities located in California, Colorado and New Mexico. Duke Energy pledged substantially all of the assets of these solar facilities and is nonrecourse to Duke Energy. Proceeds were used to reimburse Duke Energy for a portion of previously funded construction expenditures.
(g) Debt issued to fund capital expenditures for ongoing construction and capital maintenance, to repay a $250 million aggregate principal amount of bonds at maturity and for general corporate purposes.
(h) Proceeds were used to fund capital expenditures for ongoing construction, capital maintenance and for general corporate purposes.
(i) Debt issued to repay at maturity a $200 million aggregate principal amount of bonds at maturity, pay down intercompany short-term debt and for general corporate purposes, including capital expenditures.
(j) Debt issued to refinance $400 million aggregate principal amount of bonds due January 2018, pay down intercompany short-term debt and for general corporate purposes.
(k) Principal balance will be repaid in equal quarterly installments beginning in March 2018.
(l) Debt issuance has a floating interest rate.

Available Credit Facilities

In January 2018, Duke Energy extended the termination date of substantially all of its existing $8 billion Master Credit Facility capacity from March 16, 2022, to March 16, 2023. In May 2018, Duke Energy completed the extension process with 100 percent of all commitments to the Master Credit Facility extending to March 16, 2023. The Duke Energy Registrants, excluding Progress Energy (Parent), have borrowing capacity under the Master Credit Facility up to specified sublimits for each borrower. Duke Energy has the unilateral ability at any time to increase or decrease the borrowing sublimits of each borrower, subject to a maximum sublimit for each borrower. The amount available under the Master Credit Facility has been reduced to backstop issuances of commercial paper, certain letters of credit and variable-rate demand tax-exempt bonds that may be put to the Duke Energy Registrants at the option of the holder. Duke Energy Carolinas and Duke Energy Progress are also required to each maintain $250 million of available capacity under the Master Credit Facility as security to meet obligations under plea agreements reached with the U.S. Department of Justice in 2015 related to violations at North Carolina facilities with ash basins.

The table below includes the current borrowing sublimits and available capacity under these credit facilities.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy (Parent)	Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Facility size[(a)]	$ 8,000	$ 2,650	$ 1,750	$ 1,400	$ 650	$ 450	$ 600	$ 500
Reduction to backstop issuances								
Commercial paper[(b)]	(3,022)	(917)	(739)	(444)	(108)	(299)	(317)	(198)
Outstanding letters of credit	(53)	(45)	(4)	(2)	—	—	—	(2)
Tax-exempt bonds	(81)	—	—	—	—	—	(81)	—
Coal ash set-aside	(500)	—	(250)	(250)	—	—	—	—
Available capacity	$ 4,344	$ 1,688	$ 757	$ 704	$ 542	$ 151	$ 202	$ 300

(a) Represents the sublimit of each borrower.
(b) Duke Energy issued $625 million of commercial paper and loaned the proceeds through the money pool to Duke Energy Carolinas, Duke Energy Progress, Duke Energy Ohio and Duke Energy Indiana. The balances are classified as Long-Term Debt Payable to Affiliated Companies in the Consolidated Balance Sheets.

Three-Year Revolving Credit Facility

Duke Energy (Parent) has a $1.0 billion revolving credit facility through June 2020. Borrowings under this facility will be used for general corporate purposes. As of December 31, 2018, $500 million has been drawn under the Three Year Revolver. This balance is classified as Long-term debt on Duke Energy's Consolidated Balance Sheets. Any undrawn commitments can be drawn, and borrowings can be prepaid, at any time throughout the term of the facility. The terms and conditions of the Three Year Revolver are generally consistent with those governing Duke Energy's Master Credit Facility.

Duke Energy Progress Term Loan Facility

In December 2018, Duke Energy Progress entered into a two-year term loan facility with commitments totaling $700 million. Borrowings under the facility will be used to pay storm-related costs, pay down commercial paper and to partially finance an upcoming bond maturity. As of December 31, 2018, $50 million has been drawn under the term loan. The balance is classified as Long-term debt on Duke Energy Progress' Consolidated Balance Sheets. In January and February 2019, the remaining $650 million was drawn under the term loan.

Piedmont Term Loan Facility

In September 2018, Piedmont executed an amendment to its existing senior unsecured term loan facility. The amendment increased commitments from $250 million to $350 million and extended the maturity date to September 2019. Borrowings under the facility will be used for general corporate purposes. As of December 31, 2018, the entire $350 million has been drawn under the Piedmont Term Loan. This balance is classified as Current maturities of long-term debt on Piedmont's Consolidated Balance Sheets. The terms and conditions of the Piedmont Term Loan are generally consistent with those governing Duke Energy's Master Credit Facility.

Other Debt Matters

In September 2016, Duke Energy filed a Form S-3 with the SEC. Under this Form S-3, which is uncapped, the Duke Energy Registrants, excluding Progress Energy, may issue debt and other securities in the future at amounts, prices and with terms to be determined at the time of future offerings. The registration statement was filed to replace a similar prior filing upon expiration of its three-year term and also allows for the issuance of common stock by Duke Energy.

Duke Energy has an effective Form S-3 with the SEC to sell up to $3 billion of variable denomination floating-rate demand notes, called PremierNotes. The Form S-3 states that no more than $1.5 billion of the notes will be outstanding at any particular time. The notes are offered on a continuous basis and bear interest at a floating rate per annum determined by the Duke Energy PremierNotes Committee, or its designee, on a weekly basis. The interest rate payable on notes held by an investor may vary based on the principal amount of the investment. The notes have no stated maturity date, are non-transferable and may be redeemed in whole or in part by Duke Energy or at the investor's option at any time. The balance as of December 31, 2018, and 2017 was $1,010 million and $986 million, respectively. The notes are short-term debt obligations of Duke Energy and are reflected as Notes payable and commercial paper on Duke Energy's Consolidated Balance Sheets.

In January 2017, Duke Energy amended its Form S-3 to add Piedmont as a registrant and included in the amendment a prospectus for Piedmont under which it may issue debt securities in the same manner as other Duke Energy Registrants.

Money Pool

The Subsidiary Registrants, excluding Progress Energy (Parent), are eligible to receive support for their short-term borrowing needs through participation with Duke Energy and certain of its subsidiaries in a money pool arrangement. Under this arrangement, those companies with short-term funds may provide short-term loans to affiliates participating in this arrangement. The money pool is structured such that the Subsidiary Registrants, excluding Progress Energy (Parent), separately manage their cash needs and working capital requirements. Accordingly, there is no net settlement of receivables and payables between money pool participants. Duke Energy (Parent), may loan funds to its participating subsidiaries, but may not borrow funds through the money pool. Accordingly, as the money pool activity is between Duke Energy and its wholly owned subsidiaries, all money pool balances are eliminated within Duke Energy's Consolidated Balance Sheets.

Money pool receivable balances are reflected within Notes receivable from affiliated companies on the Subsidiary Registrants' Consolidated Balance Sheets. Money pool payable balances are reflected within either Notes payable to affiliated companies or Long-Term Debt Payable to Affiliated Companies on the Subsidiary Registrants' Consolidated Balance Sheets.

Restrictive Debt Covenants

The Duke Energy Registrants' debt and credit agreements contain various financial and other covenants. Duke Energy's Master Credit Facility contains a covenant requiring the debt-to-total capitalization ratio not to exceed 65 percent for each borrower, excluding Piedmont, and 70 percent for Piedmont. Failure to meet those covenants beyond applicable grace periods could result in accelerated due dates and/or termination of the agreements. As of December 31, 2018, each of the Duke Energy Registrants was in compliance with all covenants related to their debt agreements. In addition, some credit agreements may allow for acceleration of payments or termination of the agreements due to nonpayment, or acceleration of other significant indebtedness of the borrower or some of its subsidiaries. None of the debt or credit agreements contain material adverse change clauses.

Other Loans

As of December 31, 2018, and 2017, Duke Energy had loans outstanding of $741 million, including $37 million at Duke Energy Progress and $701 million, including $38 million at Duke Energy Progress, respectively, against the cash surrender value of life insurance policies it owns on the lives of its executives. The amounts outstanding were carried as a reduction of the related cash surrender value that is included in Other within Other Noncurrent Assets on the Consolidated Balance Sheets.

7. GUARANTEES AND INDEMNIFICATIONS

Duke Energy and Progress Energy have various financial and performance guarantees and indemnifications, which are issued in the normal course of business. As discussed below, these contracts include performance guarantees, standby letters of credit, debt guarantees, surety bonds and indemnifications. Duke Energy and Progress Energy enter into these arrangements to facilitate commercial transactions with third parties by enhancing the value of the transaction to the third party. At December 31, 2018, Duke Energy and Progress Energy do not believe conditions are likely for significant performance under these guarantees. To the extent liabilities are incurred as a result of the activities covered by the guarantees, such liabilities are included on the accompanying Consolidated Balance Sheets.

On January 2, 2007, Duke Energy completed the spin-off of its natural gas businesses to shareholders. Guarantees issued by Duke Energy or its affiliates, or assigned to Duke Energy prior to the spin-off, remained with Duke Energy subsequent to the spin-off. Guarantees issued by Spectra Capital or its affiliates prior to the spin-off remained with Spectra Capital subsequent to the spin-off, except for guarantees that were later assigned to Duke Energy. Duke Energy has indemnified Spectra Capital against any losses incurred under certain of the guarantee obligations that remain with Spectra Capital. At December 31, 2018, the maximum potential amount of future payments associated with these guarantees was $205 million, the majority of which expires by 2028.

Duke Energy has issued performance guarantees to customers and other third parties that guarantee the payment and performance of other parties, including certain non-wholly owned entities, as well as guarantees of debt of certain non-consolidated entities and less than wholly owned consolidated entities. If such entities were to default on payments or performance, Duke Energy would be required under the guarantees to make payments on the obligations of the less than wholly owned entity. The maximum potential amount of future payments required under these guarantees as of December 31, 2018, was $296 million. Of this amount, $11 million relates to guarantees issued on behalf of less than wholly owned consolidated entities, with the remainder related to guarantees issued on behalf of third parties and unconsolidated affiliates of Duke Energy. Of the guarantees noted above, $248 million of the guarantees expire between 2019 and 2030, with the remaining performance guarantees having no contractual expiration.

In October 2017, ACP executed a $3.4 billion revolving credit facility with a stated maturity date of October 2021. Duke Energy entered into a guarantee agreement to support its share of the ACP revolving credit facility. Duke Energy's maximum exposure to loss under the terms of the guarantee is $677 million as of December 31, 2018. This amount represents 47 percent of the outstanding borrowings under the credit facility.

Duke Energy guaranteed debt issued by Duke Energy Carolinas of $650 million as of December 31, 2018, and 2017.

Duke Energy has guaranteed certain issuers of surety bonds, obligating itself to make payment upon the failure of a wholly owned and former non-wholly owned entity to honor its obligations to a third party. Under these arrangements, Duke Energy has payment obligations that are triggered by a draw by the third party or customer due to the failure of the wholly owned or former non-wholly owned entity to perform according to the terms of its underlying contract. At December 31, 2018, Duke Energy had guaranteed $63 million of outstanding surety bonds, most of which have no set expiration.

Duke Energy uses bank-issued standby letters of credit to secure the performance of wholly owned and non-wholly owned entities to a third party or customer. Under these arrangements, Duke Energy has payment obligations to the issuing bank that are triggered by a draw by the third party or customer due to the failure of the wholly owned or non-wholly owned entity to perform according to the terms of its underlying contract. At December 31, 2018, Duke Energy had issued a total of $454 million in letters of credit, which expire between 2019 and 2022. The unused amount under these letters of credit was $60 million.

Duke Energy recognized $23 million and $21 million, as of December 31, 2018, and 2017, respectively, primarily in Other within Other Noncurrent Liabilities on the Consolidated Balance Sheets, for the guarantees discussed above. As current estimates change, additional losses related to guarantees and indemnifications to third parties, which could be material, may be recorded by the Duke Energy Registrants in the future.

8. JOINT OWNERSHIP OF GENERATING AND TRANSMISSION FACILITIES

The Duke Energy Registrants maintain ownership interests in certain jointly owned generating and transmission facilities. The Duke Energy Registrants are entitled to a share of the generating capacity and output of each unit equal to their respective ownership interests. The Duke Energy Registrants pay their ownership share of additional construction costs, fuel inventory purchases and operating expenses. The Duke Energy Registrants share of revenues and operating costs of the jointly owned facilities is included within the corresponding line in the Consolidated Statements of Operations. Each participant in the jointly owned facilities must provide its own financing.

The following table presents the Duke Energy Registrants' interest of jointly owned plant or facilities and amounts included on the Consolidated Balance Sheets. All facilities are operated by the Duke Energy Registrants and are included in the Electric Utilities and Infrastructure segment.

	December 31, 2018			
(in millions except for ownership interest)	Ownership Interest	Property, Plant and Equipment	Accumulated Depreciation	Construction Work in Progress
Duke Energy Carolinas				
Catawba (units 1 and 2)[(a)]	19.25%	$ 989	$ 483	$ 17
W.S. Lee CC[(b)]	86.67%	593	12	4
Duke Energy Indiana				
Gibson (unit 5)[(c)]	50.05%	390	173	3
Vermillion[(d)]	62.50%	168	135	—
Transmission and local facilities[(c)]	Various	5,037	1,769	—

(a) Jointly owned with North Carolina Municipal Power Agency Number 1, NCEMC and PMPA.
(b) Jointly owned with NCEMC.
(c) Jointly owned with WVPA and Indiana Municipal Power Agency.
(d) Jointly owned with WVPA.

Effective June 30, 2018, Duke Energy Ohio, Ohio Power Company, and The Dayton Power and Light Company, completed an asset exchange that reallocated their ownership interest in certain jointly owned transmission facilities. This transaction was approved by FERC and PUCO. The transaction eliminated the joint owner relationships for these assets. Assets were exchanged at net book value and the net increase in Duke Energy Ohio's assets are shown within Capital expenditures in Duke Energy Ohio's Consolidated Statements of Cash Flows.

9. ASSET RETIREMENT OBLIGATIONS

Duke Energy records an ARO when it has a legal obligation to incur retirement costs associated with the retirement of a long-lived asset and the obligation can be reasonably estimated. Certain assets of the Duke Energy Registrants have an indeterminate life, such as transmission and distribution facilities, and thus the fair value of the retirement obligation is not reasonably estimable. A liability for these AROs will be recorded when a fair value is determinable.

The Duke Energy Registrants' regulated operations accrue costs of removal for property that does not have an associated legal retirement obligation based on regulatory orders from state commissions. These costs of removal are recorded as a regulatory liability in accordance with regulatory accounting treatment. The Duke Energy Registrants do not accrue the estimated cost of removal for any nonregulated assets. See Note 4 for the estimated cost of removal for assets without an associated legal retirement obligation, which are included in Regulatory liabilities on the Consolidated Balance Sheets.

The following table presents the AROs recorded on the Consolidated Balance Sheets.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Decommissioning of nuclear power facilities[(a)]	$ 5,696	$ 2,335	$ 3,209	$ 2,679	$ 530	$ —	$ —	$ —
Closure of ash impoundments	4,446	1,568	2,123	2,103	20	52	702	—
Other[(b)]	325	46	79	38	41	41	20	19
Total asset retirement obligation	$ 10,467	$ 3,949	$ 5,411	$ 4,820	$ 591	$ 93	$ 722	$ 19
Less: current portion	919	290	514	509	5	6	109	—
Total noncurrent asset retirement obligation	$ 9,548	$ 3,659	$ 4,897	$ 4,311	$ 586	$ 87	$ 613	$ 19

(a) Duke Energy amount includes purchase accounting adjustments related to the merger with Progress Energy.
(b) Primarily includes obligations related to asbestos removal. Duke Energy Ohio and Piedmont also include AROs related to the retirement of natural gas mains and services. Duke Energy includes AROs related to the removal of renewable energy generation assets.

Nuclear Decommissioning Liability

AROs related to nuclear decommissioning are based on site-specific cost studies. The NCUC, PSCSC and FPSC require updated cost estimates for decommissioning nuclear plants every five years.

The following table summarizes information about the most recent site-specific nuclear decommissioning cost studies. Decommissioning costs are stated in 2018 dollars for Duke Energy Carolinas, 2017 dollars for Duke Energy Florida and 2014 dollars for Duke Energy Progress, and include costs to decommission plant components not subject to radioactive contamination.

(in millions)	Annual Funding Requirement[a]	Decommissioning Costs[a]	Year of Cost Study
Duke Energy	**$ 24**	**$ 8,737**	2014 and 2018
Duke Energy Carolinas[b][c]	**—**	**4,291**	2018
Duke Energy Progress	**24**	**3,550**	2014
Duke Energy Florida[d]	**—**	**896**	2018

(a) Amounts for Progress Energy equal the sum of Duke Energy Progress and Duke Energy Florida.
(b) Decommissioning cost for Duke Energy Carolinas reflects its ownership interest in jointly owned reactors. Other joint owners are responsible for decommissioning costs related to their interest in the reactors.
(c) Duke Energy Carolinas' site-specific nuclear decommissioning cost study completed in 2018 is expected to be filed with the NCUC and PSCSC by the second quarter 2019. Duke Energy Carolinas will also complete a new funding study, which will be completed and filed with the NCUC and PSCSC in 2019.
(d) Duke Energy Florida's site-specific nuclear decommissioning cost study and a new funding study were completed and filed with the FPSC in 2018.

Nuclear Decommissioning Trust Funds

Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida each maintain NDTFs that are intended to pay for the decommissioning costs of their respective nuclear power plants. The NDTF investments are managed and invested in accordance with applicable requirements of various regulatory bodies including the NRC, FERC, NCUC, PSCSC, FPSC and the IRS.

Use of the NDTF investments is restricted to nuclear decommissioning activities including license termination, spent fuel and site restoration. The license termination and spent fuel obligations relate to contaminated decommissioning and are recorded as AROs. The site restoration obligation relates to non-contaminated decommissioning and is recorded to cost of removal within Regulatory liabilities on the Consolidated Balance Sheets.

The following table presents the fair value of NDTF assets legally restricted for purposes of settling AROs associated with nuclear decommissioning. Duke Energy Florida is actively decommissioning Crystal River Unit 3 and was granted an exemption from the NRC, which allows for use of the NDTF for all aspects of nuclear decommissioning. The entire balance of Duke Energy Florida's NDTF may be applied toward license termination, spent fuel and site restoration costs incurred to decommission Crystal River Unit 3 and is excluded from the table below. See Note 16 for additional information related to the fair value of the Duke Energy Registrants' NDTFs.

	December 31,	
(in millions)	2018	2017
Duke Energy	**$ 5,579**	$ 5,864
Duke Energy Carolinas	**3,133**	3,321
Duke Energy Progress	**2,446**	2,543

Nuclear Operating Licenses

Operating licenses for nuclear units are potentially subject to extension. The following table includes the current expiration of nuclear operating licenses.

Unit	Year of Expiration
Duke Energy Carolinas	
Catawba Units 1 and 2	2043
McGuire Unit 1	2041
McGuire Unit 2	2043
Oconee Units 1 and 2	2033
Oconee Unit 3	2034
Duke Energy Progress	
Brunswick Unit 1	2036
Brunswick Unit 2	2034
Harris	2046
Robinson	2030

The NRC has acknowledged permanent cessation of operation and permanent removal of fuel from the reactor vessel at Crystal River Unit 3. Therefore, the license no longer authorizes operation of the reactor. In January 2018, Crystal River Unit 3 reached a SAFSTOR status.

Closure of Ash Impoundments

The Duke Energy Registrants are subject to state and federal regulations covering the closure of coal ash impoundments, including the EPA CCR rule and the Coal Ash Act, and other agreements. AROs recorded on the Duke Energy Registrants' Consolidated Balance Sheets include the legal obligation for closure of coal ash basins and the disposal of related ash as a result of these regulations and agreements.

The ARO amount recorded on the Consolidated Balance Sheets is based upon estimated closure costs for impacted ash impoundments. The amount recorded represents the discounted cash flows for estimated closure costs based upon either specific closure plans or the probability weightings of the potential closure methods as evaluated on a site-by-site basis. Actual costs to be incurred will be dependent upon factors that vary from site to site. The most significant factors are the method and time frame of closure at the individual sites. Closure methods considered include removing the water from ash basins, consolidating material as necessary and capping the ash with a synthetic barrier, excavating and relocating the ash to a lined structural fill or lined landfill or recycling the ash for concrete or some other beneficial use. The ultimate method and timetable for closure will be in compliance with standards set by federal and state regulations and other agreements. The ARO amount will be adjusted as additional information is gained through the closure and post-closure process, including acceptance and approval of compliance approaches, which may change management assumptions, and may result in a material change to the balance. See ARO Liability Rollforward section below for information on revisions made to the coal ash liability during 2018 and 2017.

Asset retirement costs associated with the AROs for operating plants and retired plants are included in Net property, plant and equipment and Regulatory assets, respectively, on the Consolidated Balance Sheets. See Note 4 for additional information on Regulatory assets related to AROs.

Cost recovery for future expenditures will be pursued through the normal ratemaking process with federal and state utility commissions, which permit recovery of necessary and prudently incurred costs associated with Duke Energy's regulated operations. See Note 4 for additional information on recovery of coal ash costs.

ARO Liability Rollforward

The following tables present changes in the liability associated with AROs.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Balance at December 31, 2016	$ 10,611	$ 3,895	$ 5,475	$ 4,697	$ 778	$ 77	$ 866	$ 14
Accretion expense[a]	435	184	228	195	33	3	32	1
Liabilities settled[b]	(619)	(282)	(270)	(204)	(65)	(7)	(49)	(8)
Liabilities incurred in the current year[c]	51	5	—	—	—	7	29	8
Revisions in estimates of cash flows	(303)	(192)	(19)	(15)	(4)	4	(97)	—
Balance at December 31, 2017	10,175	3,610	5,414	4,673	742	84	781	15
Accretion expense[a]	**427**	**179**	**225**	**196**	**29**	**4**	**29**	**1**
Liabilities settled[b]	**(638)**	**(281)**	**(272)**	**(227)**	**(45)**	**(5)**	**(79)**	—
Liabilities incurred in the current year[c]	**39**	**8**	**5**	**—**	**5**	**—**	**25**	—
Revisions in estimates of cash flows[d]	**464**	**433**	**39**	**178**	**(140)**	**10**	**(34)**	**3**
Balance at December 31, 2018	**$ 10,467**	**$ 3,949**	**$ 5,411**	**$ 4,820**	**$ 591**	**$ 93**	**$ 722**	**$ 19**

(a) Substantially all accretion expense for the years ended December 31, 2018, and 2017 relates to Duke Energy's regulated operations and has been deferred in accordance with regulatory accounting treatment.
(b) Amounts primarily relate to ash impoundment closures and nuclear decommissioning of Crystal River Unit 3.
(c) Amounts primarily relate to AROs recorded as a result of state agency closure requirements at Duke Energy Indiana.
(d) Amounts primarily relate to increases in groundwater monitoring estimates for closure of ash impoundments and an increase for nuclear decommissioning costs at Duke Energy Carolinas' nuclear sites compared to original estimates, partially offset by a reduction for nuclear decommissioning at Crystal River Unit 3 compared to original estimates and modifications to the timing of expected cash flows for coal ash AROs.

10. PROPERTY, PLANT AND EQUIPMENT

The following tables summarize the property, plant and equipment for Duke Energy and its subsidiary registrants.

		December 31, 2018							
(in millions)	Estimated Useful Life (Years)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Land		$ 2,072	$ 472	$ 868	$ 445	$ 423	$ 136	$ 116	$ 448
Plant – Regulated									
Electric generation, distribution and transmission	15-100	100,706	38,468	42,760	26,147	16,613	5,182	14,292	—
Natural gas transmission and distribution	12-80	8,808	—	—	—	—	2,719	—	6,089
Other buildings and improvements	24-90	1,966	681	636	295	341	270	253	126
Plant – Nonregulated									
Electric generation, distribution and transmission	5-30	4,410	—	—	—	—	—	—	—
Other buildings and improvements	25-35	494	—	—	—	—	—	—	—
Nuclear fuel		3,460	1,898	1,562	1,562	—	—	—	—
Equipment	3-55	2,141	467	565	399	166	384	178	141
Construction in process		5,726	1,678	2,515	1,659	856	412	325	382
Other	3-40	4,675	1,077	1,354	952	393	257	279	300
Total property, plant and equipment[(a)(d)]		134,458	44,741	50,260	31,459	18,792	9,360	15,443	7,486
Total accumulated depreciation – regulated[(b)(c)(d)]		(41,079)	(15,496)	(16,398)	(11,423)	(4,968)	(2,717)	(4,914)	(1,575)
Total accumulated depreciation – nonregulated[(c)(d)]		(2,047)	—	—	—	—	—	—	—
Generation facilities to be retired, net		362	—	362	362	—	—	—	—
Total net property, plant and equipment		$ 91,694	$ 29,245	$ 34,224	$ 20,398	$ 13,824	$ 6,643	$ 10,529	$ 5,911

(a) Includes capitalized leases of $1,237 million, $135 million, $257 million, $137 million, $120 million, $73 million and $35 million at Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio and Duke Energy Indiana, respectively, primarily within Plant – Regulated. The Progress Energy, Duke Energy Progress and Duke Energy Florida amounts are net of $131 million, $14 million and $117 million, respectively, of accumulated amortization of capitalized leases.

(b) Includes $1,947 million, $1,087 million, $860 million and $860 million of accumulated amortization of nuclear fuel at Duke Energy, Duke Energy Carolinas, Progress Energy and Duke Energy Progress, respectively.

(c) Includes accumulated amortization of capitalized leases of $61 million, $12 million, $20 million and $10 million at Duke Energy, Duke Energy Carolinas, Duke Energy Ohio and Duke Energy Indiana, respectively.

(d) Includes gross property, plant and equipment cost of consolidated VIEs of $4,007 million and accumulated depreciation of consolidated VIEs of $698 million at Duke Energy.

(in millions)	Estimated Useful Life (Years)	December 31, 2017							
		Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Land		$ 1,559	$ 467	$ 767	$ 424	$ 343	$ 134	$ 111	$ 41
Plant – Regulated									
Electric generation, distribution and transmission	8-100	93,687	35,657	39,419	24,502	14,917	4,870	13,741	—
Natural gas transmission and distribution	12-80	8,292	—	—	—	—	2,559	—	5,733
Other buildings and improvements	15-100	1,936	647	652	316	336	243	240	154
Plant – Nonregulated									
Electric generation, distribution and transmission[a]	5-30	4,273	—	—	—	—	—	—	—
Other buildings and improvements	25-35	465	—	—	—	—	—	—	—
Nuclear fuel		3,680	2,120	1,560	1,560	—	—	—	—
Equipment	3-55	2,122	402	555	416	139	348	169	266
Construction in process		6,995	2,614	3,059	1,434	1,625	350	416	231
Other	3-40	4,498	1,032	1,311	931	370	228	271	300
Total property, plant and equipment[b][e]		127,507	42,939	47,323	29,583	17,730	8,732	14,948	6,725
Total accumulated depreciation – regulated[c][d][e]		(39,742)	(15,063)	(15,857)	(10,903)	(4,947)	(2,691)	(4,662)	(1,479)
Total accumulated depreciation – nonregulated[d][e]		(1,795)	—	—	—	—	—	—	—
Generation facilities to be retired, net		421	—	421	421	—	—	—	—
Total net property, plant and equipment		$ 86,391	$ 27,876	$ 31,887	$ 19,101	$ 12,783	$ 6,041	$ 10,286	$ 5,246

(a) Includes a pretax impairment charge of $58 million on a wholly owned non-contracted wind project. See discussion below.
(b) Includes capitalized leases of $1,294 million, $81 million, $272 million, $139 million, $133 million, $80 million and $35 million at Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio and Duke Energy Indiana, respectively, primarily within Plant – Regulated. The Progress Energy, Duke Energy Progress and Duke Energy Florida amounts are net of $114 million, $11 million and $103 million, respectively, of accumulated amortization of capitalized leases.
(c) Includes $2,113 million, $1,283 million, $831 million and $831 million of accumulated amortization of nuclear fuel at Duke Energy, Duke Energy Carolinas, Progress Energy and Duke Energy Progress, respectively.
(d) Includes accumulated amortization of capitalized leases of $57 million, $11 million, $21 million and $9 million at Duke Energy, Duke Energy Carolinas, Duke Energy Ohio and Duke Energy Indiana, respectively.
(e) Includes gross property, plant and equipment cost of consolidated VIEs of $3,941 million and accumulated depreciation of consolidated VIEs of $598 million at Duke Energy.

During the year ended December 31, 2017, Duke Energy recorded a pretax impairment charge of $69 million on a wholly owned non-contracted wind project. The impairment was recorded within Impairment charges on Duke Energy's Consolidated Statements of Operations. $58 million of the impairment related to property, plant and equipment and $11 million of the impairment related to a net intangible asset; see Note 11 for additional information. The charge represents the excess carrying value over the estimated fair value of the project, which was based on a Level 3 Fair Value measurement that was determined from the income approach using discounted cash flows. The impairment was primarily due to the non-contracted wind project being located in a market that has experienced continued declining market pricing during 2017 and declining long-term forecasted energy and capacity prices, driven by low natural gas prices, additional renewable generation placed in service and lack of significant load growth.

The following tables present capitalized interest, which includes the debt component of AFUDC.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Duke Energy	**$ 161**	$ 128	$ 100
Duke Energy Carolinas	**35**	45	38
Progress Energy	**51**	45	31
Duke Energy Progress	**26**	21	17
Duke Energy Florida	**25**	24	14
Duke Energy Ohio	**17**	10	8
Duke Energy Indiana	**27**	9	7

	Years Ended December 31,		Two Months Ended December 31,	Year Ended October 31,
(in millions)	**2018**	**2017**	**2016**	**2016**
Piedmont	**$ 17**	$ 12	$ 2	$ 12

Operating Leases

Duke Energy's Commercial Renewables segment operates various renewable energy projects and sells the generated output to utilities, electric cooperatives, municipalities and commercial and industrial customers through long-term contracts. In certain situations, these long-term contracts and the associated renewable energy projects qualify as operating leases. Rental income from these leases is accounted for as Operating Revenues in the Consolidated Statements of Operations. There are no minimum lease payments as all payments are contingent based on actual electricity generated by the renewable energy projects. Contingent lease payments were $268 million, $262 million, and $216 million for the years ended December 31, 2018, 2017 and 2016. As of December 31, 2018, renewable energy projects owned by Duke Energy and accounted for as operating leases had a cost basis of $3,358 million and accumulated depreciation of $602 million. These assets are principally classified as nonregulated electric generation and transmission assets.

11. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Duke Energy

The following table presents goodwill by reportable segment for Duke Energy included on Duke Energy's Consolidated Balance Sheets at December 31, 2018, and 2017.

(in millions)	**Electric Utilities and Infrastructure**	**Gas Utilities and Infrastructure**	**Commercial Renewables**	**Total**
Goodwill Balance at December 31, 2017	$ 17,379	$ 1,924	$ 122	$ 19,425
Accumulated impairment charges[(a)]	—	—	(29)	(29)
Goodwill balance at December 31, 2017, adjusted for accumulated impairment charges	$ 17,379	$ 1,924	$ 93	$ 19,396
Goodwill Balance at December 31, 2018	**$ 17,379**	**$ 1,924**	**$ 122**	**$ 19,425**
Accumulated impairment charges[(a)]	**$ —**	**$ —**	**$ (122)**	**$ (122)**
Goodwill balance at December 31, 2018, adjusted for accumulated impairment charges	**$ 17,379**	**$ 1,924**	**$ —**	**$ 19,303**

(a) Duke Energy evaluated the recoverability of goodwill during 2017 and recorded impairment charges of $29 million related to the Energy Management Solutions reporting unit within the Commercial Renewables segment. The fair value of the reporting unit was determined based on the market approach. See "Goodwill Impairment Testing" below for the results of the 2018 goodwill impairment test.

Duke Energy Ohio

Duke Energy Ohio's Goodwill balance of $920 million, allocated $596 million to Electric Utilities and Infrastructure and $324 million to Gas Utilities and Infrastructure, is presented net of accumulated impairment charges of $216 million on the Consolidated Balance Sheets at December 31, 2018, and 2017.

Progress Energy

Progress Energy's Goodwill is included in the Electric Utilities and Infrastructure segment and there are no accumulated impairment charges.

Piedmont

Piedmont's Goodwill is included in the Gas Utilities and Infrastructure segment and there are no accumulated impairment charges.

Goodwill Impairment Testing

Duke Energy, Progress Energy, Duke Energy Ohio and Piedmont are required to perform an annual goodwill impairment test as of the same date each year and, accordingly, perform their annual impairment testing of goodwill as of August 31. Duke Energy, Progress Energy, Duke Energy Ohio and Piedmont update their test between annual tests if events or circumstances occur that would more likely than not reduce the fair value of a reporting unit below its carrying value.

In the third quarter of 2018, based on the results of the annual quantitative goodwill impairment test, management determined that the fair value of the Commercial Renewables reporting unit was below its respective carrying value, including goodwill. Determination of the Commercial Renewables reporting unit fair value was based on an income approach, which estimates the fair value based on discounted future cash flows. The fair value of the Commercial Renewables reporting unit is impacted by several factors, including forecasted tax credit utilization, the cost of capital, current and forecasted solar and wind volumes, and legislative developments. Certain assumptions used in determining the fair value of the reporting unit in the 2018 impairment test changed from those used in the 2017 annual impairment test including the cost of capital as a result of rising interest rates and the timing of tax credit utilization due to tax reform and IRS clarification on bonus depreciation in August 2018. Based on the quantitative impairment test, the estimated fair value of the Commercial Renewables reporting unit was below its carrying value by an immaterial amount but still more than the goodwill balance assigned to the reporting unit. As such, the entire remaining goodwill balance of approximately $93 million was impaired during the third quarter of 2018.

The fair value of all other reporting units for Duke Energy, Progress Energy, Duke Energy Ohio and Piedmont exceeded their respective carrying values at the date of the annual impairment analysis.

Intangible Assets

The following tables show the carrying amount and accumulated amortization of intangible assets included in Other within Other Noncurrent Assets on the Consolidated Balance Sheets of the Duke Energy Registrants at December 31, 2018, and 2017.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Emission allowances	$ 18	$ —	$ 5	$ 2	$ 3	$ —	$ 12	$ —
Renewable energy certificates	168	46	120	120	—	2	—	—
Natural gas, coal and power contracts	24	—	—	—	—	—	24	—
Renewable operating and development projects	84	—	—	—	—	—	—	—
Other	6	—	—	—	—	—	—	3
Total gross carrying amounts	300	46	125	122	3	2	36	3
Accumulated amortization – natural gas, coal and power contracts	(20)	—	—	—	—	—	(20)	—
Accumulated amortization – renewable operating and development projects	(29)	—	—	—	—	—	—	—
Accumulated amortization – other	(5)	—	—	—	—	—	—	(3)
Total accumulated amortization	(54)	—	—	—	—	—	(20)	(3)
Total intangible assets, net	$ 246	$ 46	$ 125	$ 122	$ 3	$ 2	$ 16	$ —

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Emission allowances	$ 19	$ 1	$ 5	$ 2	$ 3	$ —	$ 13	$ —
Renewable energy certificates	148	38	107	107	—	3	—	—
Natural gas, coal and power contracts	24	—	—	—	—	—	24	—
Renewable operating and development projects	79	—	—	—	—	—	—	—
Other	6	—	—	—	—	—	—	3
Total gross carrying amounts	276	39	112	109	3	3	37	3
Accumulated amortization – natural gas, coal and power contracts	(19)	—	—	—	—	—	(19)	—
Accumulated amortization – renewable operating and development projects	(22)	—	—	—	—	—	—	—
Accumulated amortization – other	(5)	—	—	—	—	—	—	(3)
Total accumulated amortization	(46)	—	—	—	—	—	(19)	(3)
Total intangible assets, net	$ 230	$ 39	$ 112	$ 109	$ 3	$ 3	$ 18	$ —

During the year ended December 31, 2017, Duke Energy recorded a pretax impairment charge of $69 million on a wholly owned non-contracted wind project. The impairment was recorded within Impairment charges on Duke Energy's Consolidated Statements of Operations. $58 million of the impairment related to property, plant and equipment and $11 million of the impairment related to a net intangible asset that was recorded in 2007 when the project was acquired. Prior to the impairment, the gross amount of the intangible asset was $18 million and the accumulated amortization was $7 million. The intangible asset was fully impaired. See Note 10 for additional information.

Amortization Expense

Amortization expense amounts for natural gas, coal and power contracts, renewable operating projects and other intangible assets are immaterial for the years ended December 31, 2018, 2017 and 2016, and are expected to be immaterial for the next five years as of December 31, 2018.

12. INVESTMENTS IN UNCONSOLIDATED AFFILIATES

EQUITY METHOD INVESTMENTS

Investments in affiliates that are not controlled by Duke Energy, but over which it has significant influence, are accounted for using the equity method.

The following table presents Duke Energy's investments in unconsolidated affiliates accounted for under the equity method, as well as the respective equity in earnings, by segment.

	Years Ended December 31,					
	2018		2017		2016	
(in millions)	Investments	Equity in earnings	Investments	Equity in earnings	Investments	Equity in earnings
Electric Utilities and Infrastructure	**$ 97**	**$ 6**	$ 89	$ 5	$ 93	$ 5
Gas Utilities and Infrastructure	**1,003**	**27**	763	62	566	19
Commercial Renewables	**201**	**(1)**	190	(5)	185	(82)
Other	**108**	**51**	133	57	81	43
Total	**$ 1,409**	**$ 83**	$ 1,175	$ 119	$ 925	$ (15)

During the years ended December 31, 2018, 2017 and 2016, Duke Energy received distributions from equity investments of $108 million, $13 million and $31 million, respectively, which are included in Other assets within Cash Flows from Operating Activities on the Consolidated Statements of Cash Flows. During the years ended December 31, 2018, and 2017, Duke Energy received distributions from equity investments of $137 million and $281 million, respectively, which are included in Return of investment capital within Cash Flows from Investing Activities on the Consolidated Statements of Cash Flows.

During the years ended December 31, 2018, and 2017, and the two months ended December 31, 2016, and the year ended October 31, 2016, Piedmont received distributions from equity investments of $1 million, $4 million, $1 million and $26 million, respectively, which are included in Other assets within Cash Flows from Operating Activities and $3 million, $2 million, $1 million and $18 million, respectively, which are included within Cash Flows from Investing Activities on the Consolidated Statements of Cash Flows.

Significant investments in affiliates accounted for under the equity method are discussed below.

Electric Utilities and Infrastructure

Duke Energy owns a 50 percent interest in DATC and in Pioneer, which build, own and operate electric transmission facilities in North America.

Gas Utilities and Infrastructure

The table below outlines Duke Energy's ownership interests in natural gas pipeline companies and natural gas storage facilities.

		Investment Amount (in millions)	
Entity Name	Ownership Interest	December 31, 2018	December 31, 2017
Pipeline Investments			
Atlantic Coast Pipeline, LLC[a]	47%	**$ 797**	$ 397
Sabal Trail Transmission, LLC	7.5%	**112** [d]	219
Constitution Pipeline, LLC[a]	24%	**25**	81
Cardinal Pipeline Company, LLC[b]	21.49%	**10**	11
Storage Facilities			
Pine Needle LNG Company, LLC[b]	45%	**13**	13
Hardy Storage Company, LLC[b]	50%	**46**	42
Total Investments[c]		**$ 1,003**	$ 763

(a) During the year ended December 31, 2017, Piedmont transferred its share of ownership interest in ACP and Constitution to a wholly owned subsidiary of Duke Energy at book value.
(b) Piedmont owns the Cardinal, Pine Needle and Hardy Storage investments.
(c) Duke Energy includes purchase accounting adjustments related to Piedmont.
(d) Sabal Trail returned capital of $112 million during the year ended December 31, 2018.

In October 2017, Duke Energy entered into a guarantee agreement to support its share of the ACP revolving credit facility. See Note 7 for additional information. As a result of the financing, ACP returned capital of $265 million to Duke Energy.

Piedmont sold its 15 percent membership interest in SouthStar on October 3, 2016, for $160 million resulting in an after tax gain of $81 million during the year ended October 31, 2016. Piedmont's Equity in Earnings in SouthStar was $19 million for the year ended October 31, 2016.

During the fourth quarter of 2018, ACP received several adverse court rulings as described in Note 4. As a result, Duke Energy evaluated this investment for impairment and determined that fair value approximated carrying value and therefore no impairment was necessary.

For regulatory matters and other information on the ACP, Sabal Trail and Constitution investments, see Notes 4 and 17.

Commercial Renewables

Duke Energy has a 50 percent interest in DS Cornerstone, LLC, which owns wind farm projects in the U.S.

Impairment of Equity Method Investments

During the year ended December 31, 2018, Duke Energy recorded an OTTI of the Constitution investment of $55 million within Equity in earnings of unconsolidated affiliates on Duke Energy's Consolidated Statements of Operations. The charge represents the excess carrying value over the estimated fair value of the project, which was based on a Level 3 Fair Value measurement that was determined from the income approach using discounted cash flows. The impairment was primarily due to the recent actions taken by the courts and regulators to uphold the NYSDEC's denial of the certification and uncertainty associated with the remaining legal and regulatory challenges. For additional information on the Constitution investment, see Note 4.

During the year ended December 31, 2016, Duke Energy recorded an OTTI of certain wind project investments. The $71 million pretax impairment was recorded within Equity in earnings (losses) of unconsolidated affiliates on Duke Energy's Consolidated Statements of Operations. The other-than-temporary decline in value of these investments was primarily attributable to a sustained decline in market pricing where the wind investments are located, projected net losses for the projects and a reduction in the projected cash distribution to the class of investment owned by Duke Energy.

Other

Duke Energy owns a 17.5 percent indirect interest in NMC, which owns and operates a methanol and MTBE business in Jubail, Saudi Arabia. Duke Energy's economic ownership interest decreased from 25 to 17.5 percent with the successful startup of NMC's polyacetal production facility in 2017. Duke Energy retains 25 percent of the board representation and voting rights of NMC.

13. RELATED PARTY TRANSACTIONS

The Subsidiary Registrants engage in related party transactions in accordance with the applicable state and federal commission regulations. Refer to the Consolidated Balance Sheets of the Subsidiary Registrants for balances due to or due from related parties. Material amounts related to transactions with related parties included in the Consolidated Statements of Operations and Comprehensive Income are presented in the following table.

	Years Ended December 31,		
(in millions)	2018	2017	2016
Duke Energy Carolinas			
Corporate governance and shared service expenses[(a)]	**$ 985**	$ 858	$ 831
Indemnification coverages[(b)]	**22**	23	22
JDA revenue[(c)]	**84**	49	38
JDA expense[(c)]	**207**	145	156
Intercompany natural gas purchases[(d)]	**15**	9	2
Progress Energy			
Corporate governance and shared service expenses[(a)]	**$ 906**	$ 736	$ 710
Indemnification coverages[(b)]	**34**	38	35
JDA revenue[(c)]	**207**	145	156
JDA expense[(c)]	**84**	49	38
Intercompany natural gas purchases[(d)]	**78**	77	19
Duke Energy Progress			
Corporate governance and shared service expenses[(a)]	**$ 577**	$ 438	$ 397
Indemnification coverages[(b)]	**13**	15	14
JDA revenue[(c)]	**207**	145	156
JDA expense[(c)]	**84**	49	38
Intercompany natural gas purchases[(d)]	**78**	77	19
Duke Energy Florida			
Corporate governance and shared service expenses[(a)]	**$ 329**	$ 298	$ 313
Indemnification coverages[(b)]	**21**	23	21
Duke Energy Ohio			
Corporate governance and shared service expenses[(a)]	**$ 374**	$ 363	$ 356
Indemnification coverages[(b)]	**5**	5	5
Duke Energy Indiana			
Corporate governance and shared service expenses[(a)]	**$ 405**	$ 370	$ 366
Indemnification coverages[(b)]	**7**	8	8
Piedmont			
Corporate governance and shared service expenses[(a)]	**$ 170**	$ 50	
Indemnification coverages[(b)]	**2**	2	
Intercompany natural gas sales[(d)]	**93**	86	
Natural gas storage and transportation costs[(e)]	**25**	25	

(a) The Subsidiary Registrants are charged their proportionate share of corporate governance and other shared services costs, primarily related to human resources, employee benefits, information technology, legal and accounting fees, as well as other third-party costs. These amounts are primarily recorded in Operation, maintenance and other on the Consolidated Statements of Operations and Comprehensive Income.

(b) The Subsidiary Registrants incur expenses related to certain indemnification coverages through Bison, Duke Energy's wholly owned captive insurance subsidiary. These expenses are recorded in Operation, maintenance and other on the Consolidated Statements of Operations and Comprehensive Income.

(c) Duke Energy Carolinas and Duke Energy Progress participate in a JDA, which allows the collective dispatch of power plants between the service territories to reduce customer rates. Revenues from the sale of power and expenses from the purchase of power pursuant to the JDA are recorded in Operating Revenues and Fuel used in electric generation and purchased power, respectively, on the Consolidated Statements of Operations and Comprehensive Income.

(d) Piedmont provides long-term natural gas delivery service to certain Duke Energy Carolinas and Duke Energy Progress natural gas-fired generation facilities. Piedmont records the sales in Operating Revenues, and Duke Energy Carolinas and Duke Energy Progress record the related purchases as a component of Fuel used in electric generation and purchased power on their respective Consolidated Statements of Operations and Comprehensive Income. These intercompany revenues and expenses are eliminated in consolidation. For the two months ended December 31, 2016, and for sales made subsequent to the acquisition for the year ended October 31, 2016, Piedmont recorded $14 million and $7 million, respectively, of natural gas sales with Duke Energy. For sales made prior to the acquisition for the year ended October 31, 2016, Piedmont recorded $74 million of natural gas sales with Duke Energy.

(e) Piedmont has related party transactions as a customer of its equity method investments in Pine Needle, Hardy Storage, and Cardinal natural gas storage and transportation facilities. These expenses are included in Cost of natural gas on Piedmont's Consolidated Statements of Operations and Comprehensive Income. For the two months ended December 31, 2016, and for the year ended October 31, 2016, Piedmont recorded $6 million and $29 million, respectively, of natural gas storage and transportation costs.

In addition to the amounts presented above, the Subsidiary Registrants have other affiliate transactions, including rental of office space, participation in a money pool arrangement, other operational transactions and their proportionate share of certain charged expenses. See Note 6 for more information regarding money pool. These transactions of the Subsidiary Registrants are incurred in the ordinary course of business and are eliminated in consolidation.

As discussed in Note 17, certain trade receivables have been sold by Duke Energy Ohio and Duke Energy Indiana to CRC, an affiliate formed by a subsidiary of Duke Energy. The proceeds obtained from the sales of receivables are largely cash but do include a subordinated note from CRC for a portion of the purchase price.

Intercompany Income Taxes

Duke Energy and the Subsidiary Registrants file a consolidated federal income tax return and other state and jurisdictional returns. The Subsidiary Registrants have a tax sharing agreement with Duke Energy for the allocation of consolidated tax liabilities and benefits. Income taxes recorded represent amounts the Subsidiary Registrants would incur as separate C-Corporations. The following table includes the balance of intercompany income tax receivables and payables for the Subsidiary Registrants.

(in millions)	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
December 31, 2018							
Intercompany income tax receivable	**$ 52**	**$ 47**	**$ 29**	**$ —**	**$ —**	**$ 8**	**$ —**
Intercompany income tax payable	**—**	**—**	**—**	**16**	**3**	**—**	**45**
December 31, 2017							
Intercompany income tax receivable	$ —	$ 168	$ —	$ 44	$ 22	$ —	$ 7
Intercompany income tax payable	44	—	21	—	—	35	—

14. DERIVATIVES AND HEDGING

The Duke Energy Registrants use commodity and interest rate contracts to manage commodity price risk and interest rate risk. The primary use of commodity derivatives is to hedge the generation portfolio against changes in the prices of electricity and natural gas. Piedmont enters into natural gas supply contracts to provide diversification, reliability and natural gas cost benefits to its customers. Interest rate swaps are used to manage interest rate risk associated with borrowings.

All derivative instruments not identified as NPNS are recorded at fair value as assets or liabilities on the Consolidated Balance Sheets. Cash collateral related to derivative instruments executed under master netting arrangements is offset against the collateralized derivatives on the Consolidated Balance Sheets. The cash impacts of settled derivatives are recorded as operating activities on the Consolidated Statements of Cash Flows.

INTEREST RATE RISK

The Duke Energy Registrants are exposed to changes in interest rates as a result of their issuance or anticipated issuance of variable-rate and fixed-rate debt and commercial paper. Interest rate risk is managed by limiting variable-rate exposures to a percentage of total debt and by monitoring changes in interest rates. To manage risk associated with changes in interest rates, the Duke Energy Registrants may enter into interest rate swaps, U.S. Treasury lock agreements and other financial contracts. In anticipation of certain fixed-rate debt issuances, a series of forward-starting interest rate swaps or Treasury locks may be executed to lock in components of current market interest rates. These instruments are later terminated prior to or upon the issuance of the corresponding debt.

Cash Flow Hedges

For a derivative designated as hedging the exposure to variable cash flows of a future transaction, referred to as a cash flow hedge, the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income and subsequently reclassified into earnings once the future transaction impacts earnings. Amounts for interest rate contracts are reclassified to earnings as interest expense over the term of the related debt. Gains and losses reclassified out of AOCI for the years ended December 31, 2018, 2017 and 2016 were not material. Duke Energy's interest rate derivatives designated as hedges include interest rate swaps used to hedge existing debt within the Commercial Renewables business.

Undesignated Contracts

Undesignated contracts primarily include contracts not designated as a hedge because they are accounted for under regulatory accounting or contracts that do not qualify for hedge accounting.

Duke Energy's interest rate swaps for its regulated operations employ regulatory accounting. With regulatory accounting, the mark-to-market gains or losses on the swaps are deferred as regulatory liabilities or regulatory assets, respectively. Regulatory assets and liabilities are amortized consistent with the treatment of the related costs in the ratemaking process. The accrual of interest on the swaps is recorded as Interest Expense on the Duke Energy Registrant's Consolidated Statements of Operations and Comprehensive Income.

In August 2016, Duke Energy unwound $1.4 billion of forward-starting interest rate swaps associated with the Piedmont acquisition financing. The swaps were considered undesignated as they did not qualify for hedge accounting. Losses on the swaps of $190 million are included within Interest Expense on the Consolidated Statements of Operations for the year ended December 31, 2016. See Note 2 for additional information related to the Piedmont acquisition.

The following tables show notional amounts of outstanding derivatives related to interest rate risk.

	December 31, 2018					
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio
Cash flow hedges	**$ 923**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Undesignated contracts	**1,721**	**300**	**1,200**	**650**	**550**	**27**
Total notional amount[a]	**$ 2,644**	**$ 300**	**$ 1,200**	**$ 650**	**$ 550**	**$ 27**

	December 31, 2017					
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio
Cash flow hedges[a]	$ 660	$ —	$ —	$ —	$ —	$ —
Undesignated contracts	927	400	500	250	250	27
Total notional amount	$ 1,587	$ 400	$ 500	$ 250	$ 250	$ 27

(a) Duke Energy includes amounts related to consolidated VIEs of $422 million in cash flow hedges and $194 million in undesignated contracts as of December 31, 2018, and $660 million in cash flow hedges as of December 31, 2017.

COMMODITY PRICE RISK

The Duke Energy Registrants are exposed to the impact of changes in the prices of electricity purchased and sold in bulk power markets and coal and natural gas purchases, including Piedmont's natural gas supply contracts. Exposure to commodity price risk is influenced by a number of factors including the term of contracts, the liquidity of markets and delivery locations. For the Subsidiary Registrants, bulk power electricity and coal and natural gas purchases flow through fuel adjustment clauses, formula based contracts or other cost sharing mechanisms. Differences between the costs included in rates and the incurred costs, including undesignated derivative contracts, are largely deferred as regulatory assets or regulatory liabilities. Piedmont policies allow for the use of financial instruments to hedge commodity price risks. The strategy and objective of these hedging programs are to use the financial instruments to reduce gas cost volatility for customers.

Volumes

The tables below include volumes of outstanding commodity derivatives. Amounts disclosed represent the absolute value of notional volumes of commodity contracts excluding NPNS. The Duke Energy Registrants have netted contractual amounts where offsetting purchase and sale contracts exist with identical delivery locations and times of delivery. Where all commodity positions are perfectly offset, no quantities are shown.

	December 31, 2018							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Electricity (gigawatt-hours)	**15,286**	**—**	**—**	**—**	**—**	**1,786**	**13,500**	**—**
Natural gas (millions of dekatherms)	**739**	**121**	**169**	**166**	**3**	**—**	**1**	**448**

	December 31, 2017						
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Indiana	Piedmont
Electricity (gigawatt-hours)	34	—	—	—	—	34	—
Natural gas (millions of dekatherms)	770	105	183	133	50	2	480

LOCATION AND FAIR VALUE OF DERIVATIVE ASSETS AND LIABILITIES RECOGNIZED IN THE CONSOLIDATED BALANCE SHEETS

The following tables show the fair value and balance sheet location of derivative instruments. Although derivatives subject to master netting arrangements are netted on the Consolidated Balance Sheets, the fair values presented below are shown gross and cash collateral on the derivatives has not been netted against the fair values shown.

Derivative Assets	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Commodity Contracts								
Not Designated as Hedging Instruments								
Current	$ 35	$ 2	$ 2	$ 2	$ —	$ 6	$ 23	$ 3
Noncurrent	4	1	2	2	—	—	—	—
Total Derivative Assets – Commodity Contracts	$ 39	$ 3	$ 4	$ 4	$ —	$ 6	$ 23	$ 3
Interest Rate Contracts								
Designated as Hedging Instruments								
Current	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Noncurrent	3	—	—	—	—	—	—	—
Not Designated as Hedging Instruments								
Current	2	—	—	—	—	—	—	—
Noncurrent	12	—	—	—	—	—	—	—
Total Derivative Assets – Interest Rate Contracts	$ 18	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Total Derivative Assets	$ 57	$ 3	$ 4	$ 4	$ —	$ 6	$ 23	$ 3

Derivative Liabilities	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Commodity Contracts								
Not Designated as Hedging Instruments								
Current	$ 33	$ 14	$ 10	$ 5	$ 6	$ —	$ —	$ 8
Noncurrent	158	10	15	6	—	—	—	133
Total Derivative Liabilities – Commodity Contracts	$ 191	$ 24	$ 25	$ 11	$ 6	$ —	$ —	$ 141
Interest Rate Contracts								
Designated as Hedging Instruments								
Current	$ 12	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Noncurrent	6	—	—	—	—	—	—	—
Not Designated as Hedging Instruments								
Current	23	9	13	11	2	1	—	—
Noncurrent	10	—	6	5	1	4	—	—
Total Derivative Liabilities – Interest Rate Contracts	$ 51	$ 9	$ 19	$ 16	$ 3	$ 5	$ —	$ —
Total Derivative Liabilities	$ 242	$ 33	$ 44	$ 27	$ 9	$ 5	$ —	$ 141

Derivative Assets	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Commodity Contracts								
Not Designated as Hedging Instruments								
Current	$ 34	$ 2	$ 2	$ 1	$ 1	$ 1	$ 27	$ 2
Noncurrent	1	—	1	1	—	—	—	—
Total Derivative Assets – Commodity Contracts	$ 35	$ 2	$ 3	$ 2	$ 1	$ 1	$ 27	$ 2
Interest Rate Contracts								
Designated as Hedging Instruments								
Current	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Noncurrent	15	—	—	—	—	—	—	—
Total Derivative Assets – Interest Rate Contracts	$ 16	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Total Derivative Assets	$ 51	$ 2	$ 3	$ 2	$ 1	$ 1	$ 27	$ 2

Derivative Liabilities	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Commodity Contracts								
Not Designated as Hedging Instruments								
Current	$ 36	$ 6	$ 18	$ 8	$ 10	$ —	$ —	$ 11
Noncurrent	146	4	10	4	—	—	—	131
Total Derivative Liabilities – Commodity Contracts	$ 182	$ 10	$ 28	$ 12	$ 10	$ —	$ —	$ 142
Interest Rate Contracts								
Designated as Hedging Instruments								
Current	$ 29	$ 25	$ —	$ —	$ —	$ —	$ —	$ —
Noncurrent	6	—	—	—	—	—	—	—
Not Designated as Hedging Instruments								
Current	1	—	1	—	—	1	—	—
Noncurrent	12	—	7	6	2	4	—	—
Total Derivative Liabilities – Interest Rate Contracts	$ 48	$ 25	$ 8	$ 6	$ 2	$ 5	$ —	$ —
Total Derivative Liabilities	$ 230	$ 35	$ 36	$ 18	$ 12	$ 5	$ —	$ 142

OFFSETTING ASSETS AND LIABILITIES

The following tables present the line items on the Consolidated Balance Sheets where derivatives are reported. Substantially all of Duke Energy's outstanding derivative contracts are subject to enforceable master netting arrangements. The gross amounts offset in the tables below show the effect of these netting arrangements on financial position and include collateral posted to offset the net position. The amounts shown are calculated by counterparty. Accounts receivable or accounts payable may also be available to offset exposures in the event of bankruptcy. These amounts are not included in the tables below.

Derivative Assets	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current								
Gross amounts recognized	$ 38	$ 2	$ 2	$ 2	$ —	$ 6	$ 23	$ 3
Gross amounts offset	(3)	(2)	(2)	(2)	—	—	—	—
Net amounts presented in Current Assets: Other	$ 35	$ —	$ —	$ —	$ —	$ 6	$ 23	$ 3
Noncurrent								
Gross amounts recognized	$ 19	$ 1	$ 2	$ 2	$ —	$ —	$ —	$ —
Gross amounts offset	(3)	(1)	(2)	(2)	—	—	—	—
Net amounts presented in Other Noncurrent Assets: Other	$ 16	$ —	$ —	$ —	$ —	$ —	$ —	$ —

Derivative Liabilities	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current								
Gross amounts recognized	$ 68	$ 23	$ 23	$ 16	$ 8	$ 1	$ —	$ 8
Gross amounts offset	(4)	(2)	(2)	(2)	—	—	—	—
Net amounts presented in Current Liabilities: Other	$ 64	$ 21	$ 21	$ 14	$ 8	$ 1	$ —	$ 8
Noncurrent								
Gross amounts recognized	$ 174	$ 10	$ 21	$ 11	$ 1	$ 4	$ —	$ 133
Gross amounts offset	(3)	(1)	(2)	(2)	—	—	—	—
Net amounts presented in Other Noncurrent Liabilities: Other	$ 171	$ 9	$ 19	$ 9	$ 1	$ 4	$ —	$ 133

Derivative Assets	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current								
Gross amounts recognized	$ 35	$ 2	$ 2	$ 1	$ 1	$ 1	$ 27	$ 2
Gross amounts offset	—	—	—	—	—	—	—	—
Net amounts presented in Current Assets: Other	$ 35	$ 2	$ 2	$ 1	$ 1	$ 1	$ 27	$ 2
Noncurrent								
Gross amounts recognized	$ 16	$ —	$ 1	$ 1	$ —	$ —	$ —	$ —
Gross amounts offset	—	—	—	—	—	—	—	—
Net amounts presented in Other Noncurrent Assets: Other	$ 16	$ —	$ 1	$ 1	$ —	$ —	$ —	$ —

Derivative Liabilities	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current								
Gross amounts recognized	$ 66	$ 31	$ 19	$ 8	$ 10	$ 1	$ —	$ 11
Gross amounts offset	(3)	(2)	(2)	(2)	—	—	—	—
Net amounts presented in Current Liabilities: Other	$ 63	$ 29	$ 17	$ 6	$ 10	$ 1	$ —	$ 11
Noncurrent								
Gross amounts recognized	$ 164	$ 4	$ 17	$ 10	$ 2	$ 4	$ —	$ 131
Gross amounts offset	(1)	—	(1)	(1)	—	—	—	—
Net amounts presented in Other Noncurrent Liabilities: Other	$ 163	$ 4	$ 16	$ 9	$ 2	$ 4	$ —	$ 131

OBJECTIVE CREDIT CONTINGENT FEATURES

Certain derivative contracts contain objective credit contingent features. These features include the requirement to post cash collateral or letters of credit if specific events occur, such as a credit rating downgrade below investment grade. The following tables show information with respect to derivative contracts that are in a net liability position and contain objective credit-risk-related payment provisions.

	December 31, 2018				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Aggregate fair value of derivatives in a net liability position	**$ 44**	**$ 19**	**$ 25**	**$ 25**	**$ —**
Fair value of collateral already posted	**—**	**—**	**—**	**—**	**—**
Additional cash collateral or letters of credit in the event credit-risk-related contingent features were triggered	**44**	**19**	**25**	**25**	**—**

	December 31, 2017				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Aggregate fair value of derivatives in a net liability position	$ 59	$ 35	$ 25	$ 15	$ 10
Fair value of collateral already posted	—	—	—	—	—
Additional cash collateral or letters of credit in the event credit-risk-related contingent features were triggered	59	35	25	15	10

The Duke Energy Registrants have elected to offset cash collateral and fair values of derivatives. For amounts to be netted, the derivative and cash collateral must be executed with the same counterparty under the same master netting arrangement.

15. INVESTMENTS IN DEBT AND EQUITY SECURITIES

Duke Energy's investments in debt and equity securities are primarily comprised of investments held in (i) the NDTF at Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, (ii) the grantor trusts at Duke Energy Progress, Duke Energy Florida and Duke Energy Indiana related to OPEB plans and (iii) Bison. The Duke Energy Registrants classify investments in debt securities as AFS and investments in equity securities as FV-NI.

For investments in debt securities classified as AFS, the unrealized gains and losses are included in other comprehensive income until realized, at which time, they are reported though net income. For investments in equity securities classified as FV-NI, both realized and unrealized gains and losses are reported through net income. Substantially all of Duke Energy's investments in debt and equity securities qualify for regulatory accounting, and accordingly, all associated realized and unrealized gains and losses on these investments are deferred as a regulatory asset or liability.

Duke Energy classifies the majority of investments in debt and equity securities as long term, unless otherwise noted.

Investment Trusts

The investments within the NDTF and the Investment Trusts are managed by independent investment managers with discretion to buy, sell and invest pursuant to the objectives set forth by the trust agreements. The Duke Energy Registrants have limited oversight of the day-to-day management of these investments. As a result, the ability to hold investments in unrealized loss positions is outside the control of the Duke Energy Registrants. Accordingly, all unrealized losses associated with debt securities within the Investment Trusts are considered OTTIs and are recognized immediately and deferred to regulatory accounts where appropriate.

Other AFS Securities

Unrealized gains and losses on all other AFS securities are included in other comprehensive income until realized, unless it is determined the carrying value of an investment is other-than-temporarily impaired. The Duke Energy Registrants analyze all investment holdings each reporting period to determine whether a decline in fair value should be considered other-than-temporary. If an OTTI exists, the unrealized credit loss is included in earnings. There were no material credit losses as of December 31, 2018, and 2017.

Other Investments amounts are recorded in Other within Other Noncurrent Assets on the Consolidated Balance Sheets.

DUKE ENERGY

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are classified as FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
NDTF						
Cash and cash equivalents	**$ —**	**$ —**	**$ 88**	$ —	$ —	$ 115
Equity securities	**2,402**	**95**	**4,475**	2,805	27	4,914
Corporate debt securities	**4**	**13**	**566**	17	2	570
Municipal bonds	**1**	**4**	**353**	4	3	344
U.S. government bonds	**14**	**12**	**1,076**	11	7	1,027
Other debt securities	**—**	**2**	**148**	—	1	118
Total NDTF Investments	**$ 2,421**	**$ 126**	**$ 6,706**	$ 2,837	$ 40	$ 7,088
Other Investments						
Cash and cash equivalents	**$ —**	**$ —**	**$ 22**	$ —	$ —	$ 15
Equity securities	**36**	**1**	**99**	59	—	123
Corporate debt securities	**—**	**2**	**60**	1	—	57
Municipal bonds	**—**	**1**	**85**	2	1	83
U.S. government bonds	**1**	**—**	**45**	—	—	41
Other debt securities	**—**	**1**	**58**	—	1	44
Total Other Investments	**$ 37**	**$ 5**	**$ 369**	$ 62	$ 2	$ 363
Total Investments	**$ 2,458**	**$ 131**	**$ 7,075**	$ 2,899	$ 42	$ 7,451

The table below summarizes the maturity date for debt securities.

(in millions)	December 31, 2018
Due in one year or less	**$ 98**
Due after one through five years	**501**
Due after five through 10 years	**570**
Due after 10 years	**1,222**
Total	**$ 2,391**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were as follows.

	Year Ended December 31,
(in millions)	2018
FV-NI:	
Realized gains	**$ 168**
Realized losses	**126**
AFS:	
Realized gains	**22**
Realized losses	**51**

	Years Ended December 31,	
(in millions)	2017	2016
Realized gains	$ 202	$ 246
Realized losses	160	187

DUKE ENERGY CAROLINAS

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are classified as FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
NDTF						
Cash and cash equivalents	**$ —**	**$ —**	**$ 29**	$ —	$ —	$ 32
Equity securities	**1,309**	**54**	**2,484**	1,531	12	2,692
Corporate debt securities	**2**	**9**	**341**	9	2	359
Municipal bonds	**—**	**1**	**81**	—	1	60
U.S. government bonds	**5**	**8**	**475**	3	4	503
Other debt securities	**—**	**2**	**143**	—	1	112
Total NDTF Investments	**$ 1,316**	**$ 74**	**$ 3,553**	$ 1,543	$ 20	$ 3,758

The table below summarizes the maturity date for debt securities.

(in millions)	December 31, 2018
Due in one year or less	**$ 6**
Due after one through five years	**142**
Due after five through 10 years	**303**
Due after 10 years	**589**
Total	**$ 1,040**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were as follows.

	Year Ended December 31,
(in millions)	**2018**
FV-NI:	
Realized gains	**$ 89**
Realized losses	**73**
AFS:	
Realized gains	**19**
Realized losses	**35**

	Years Ended December 31,	
(in millions)	2017	2016
Realized gains	$ 135	$ 157
Realized losses	103	121

PROGRESS ENERGY

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are classified as FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**
NDTF						
Cash and cash equivalents	**$ —**	**$ —**	**$ 59**	$ —	$ —	$ 83
Equity securities	**1,093**	**41**	**1,991**	1,274	15	2,222
Corporate debt securities	**2**	**4**	**225**	8	—	211
Municipal bonds	**1**	**3**	**272**	4	2	284
U.S. government bonds	**9**	**4**	**601**	8	3	524
Other debt securities	**—**	**—**	**5**	—	—	6
Total NDTF Investments	**$ 1,105**	**$ 52**	**$ 3,153**	$ 1,294	$ 20	$ 3,330
Other Investments						
Cash and cash equivalents	**$ —**	**$ —**	**$ 17**	$ —	$ —	$ 12
Municipal bonds	**—**	**—**	**47**	2	—	47
Total Other Investments	**$ —**	**$ —**	**$ 64**	$ 2	$ —	$ 59
Total Investments	**$ 1,105**	**$ 52**	**$ 3,217**	$ 1,296	$ 20	$ 3,389

The table below summarizes the maturity date for debt securities.

(in millions)	**December 31, 2018**
Due in one year or less	**$ 87**
Due after one through five years	**306**
Due after five through 10 years	**216**
Due after 10 years	**541**
Total	**$ 1,150**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were as follows.

	Year Ended December 31,
(in millions)	**2018**
FV-NI:	
Realized gains	**$ 79**
Realized losses	**53**
AFS:	
Realized gains	**3**
Realized losses	**15**

	Years Ended December 31,	
(in millions)	2017	2016
Realized gains	$ 65	$ 84
Realized losses	56	64

DUKE ENERGY PROGRESS

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are classified as FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**
NDTF						
Cash and cash equivalents	**$ —**	**$ —**	**$ 46**	$ —	$ —	$ 50
Equity securities	**833**	**30**	**1,588**	980	12	1,795
Corporate debt securities	**2**	**3**	**171**	6	—	149
Municipal bonds	**1**	**3**	**271**	4	2	283
U.S. government bonds	**6**	**3**	**415**	5	2	310
Other debt securities	**—**	**—**	**3**	—	—	4
Total NDTF Investments	**$ 842**	**$ 39**	**$ 2,494**	$ 995	$ 16	$ 2,591
Other Investments						
Cash and cash equivalents	**$ —**	**$ —**	**$ 6**	$ —	$ —	$ 1
Total Other Investments	**$ —**	**$ —**	**$ 6**	$ —	$ —	$ 1
Total Investments	**$ 842**	**$ 39**	**$ 2,500**	$ 995	$ 16	$ 2,592

The table below summarizes the maturity date for debt securities.

(in millions)	**December 31, 2018**
Due in one year or less	**$ 49**
Due after one through five years	**231**
Due after five through 10 years	**161**
Due after 10 years	**419**
Total	**$ 860**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were as follows.

	Year Ended December 31,
(in millions)	**2018**
FV-NI:	
Realized gains	**$ 68**
Realized losses	**48**
AFS:	
Realized gains	**$ 2**
Realized losses	**10**

	Years Ended December 31,	
(in millions)	2017	2016
Realized gains	$ 54	$ 71
Realized losses	48	55

DUKE ENERGY FLORIDA

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are classified as FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**
NDTF						
Cash and cash equivalents	**$ —**	**$ —**	**$ 13**	$ —	$ —	$ 33
Equity securities	**260**	**11**	**403**	294	3	427
Corporate debt securities	**—**	**1**	**54**	2	—	62
Municipal bonds	**—**	**—**	**1**	—	—	1
U.S. government bonds	**3**	**1**	**186**	3	1	214
Other debt securities	**—**	**—**	**2**	—	—	2
Total NDTF Investments[(a)]	**$ 263**	**$ 13**	**$ 659**	$ 299	$ 4	$ 739
Other Investments						
Cash and cash equivalents	**$ —**	**$ —**	**$ 1**	$ —	$ —	$ 1
Municipal bonds	**—**	**—**	**47**	2	—	47
Total Other Investments	**$ —**	**$ —**	**$ 48**	$ 2	$ —	$ 48
Total Investments	**$ 263**	**$ 13**	**$ 707**	$ 301	$ 4	$ 787

(a) During the year ended December 31, 2018, Duke Energy Florida continued to receive reimbursements from the NDTF for costs related to ongoing decommissioning activity of the Crystal River Unit 3 nuclear plant.

The table below summarizes the maturity date for debt securities.

(in millions)	**December 31, 2018**
Due in one year or less	**$ 38**
Due after one through five years	**75**
Due after five through 10 years	**55**
Due after 10 years	**122**
Total	**$ 290**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were as follows.

	Year Ended December 31,
(in millions)	**2018**
FV-NI:	
Realized gains	**$ 11**
Realized losses	**5**
AFS:	
Realized gains	**1**
Realized losses	**5**

	Years Ended December 31,	
(in millions)	2017	2016
Realized gains	$ 11	$ 13
Realized losses	8	9

DUKE ENERGY INDIANA

The following table presents the estimated fair value of investments in debt and equity securities; equity investments are measured at FV-NI and debt investments are classified as AFS.

	December 31, 2018			December 31, 2017		
(in millions)	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**	**Gross Unrealized Holding Gains**	**Gross Unrealized Holding Losses**	**Estimated Fair Value**
Investments						
Equity securities	**$ 29**	**$ —**	**$ 67**	$ 49	$ —	$ 97
Corporate debt securities	**—**	**—**	**8**	—	—	3
Municipal bonds	**—**	**1**	**33**	—	1	28
Total Investments	**$ 29**	**$ 1**	**$ 108**	$ 49	$ 1	$ 128

The table below summarizes the maturity date for debt securities.

(in millions)	**December 31, 2018**
Due in one year or less	**$ 3**
Due after one through five years	**20**
Due after five through 10 years	**4**
Due after 10 years	**14**
Total	**$ 41**

Realized gains and losses, which were determined on a specific identification basis, from sales of FV-NI and AFS securities for the year ended December 31, 2018, and from sales of AFS securities for the years ended December 31, 2017, and 2016, were insignificant.

16. FAIR VALUE MEASUREMENTS

Fair value is the exchange price to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date. The fair value definition focuses on an exit price versus the acquisition cost. Fair value measurements use market data or assumptions market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs may be readily observable, corroborated by market data, or generally unobservable. Valuation techniques maximize the use of observable inputs and minimize use of unobservable inputs. A midmarket pricing convention (the midpoint price between bid and ask prices) is permitted for use as a practical expedient.

Fair value measurements are classified in three levels based on the fair value hierarchy as defined by GAAP. Certain investments are not categorized within the fair value hierarchy. These investments are measured at fair value using the NAV per share practical expedient. The NAV is derived based on the investment cost, less any impairment, plus or minus changes resulting from observable price changes for an identical or similar investment of the same issuer.

Fair value accounting guidance permits entities to elect to measure certain financial instruments that are not required to be accounted for at fair value, such as equity method investments or the company's own debt, at fair value. The Duke Energy Registrants have not elected to record any of these items at fair value.

Transfers between levels represent assets or liabilities that were previously (i) categorized at a higher level for which the inputs to the estimate became less observable or (ii) classified at a lower level for which the inputs became more observable during the period. The Duke Energy Registrant's policy is to recognize transfers between levels of the fair value hierarchy at the end of the period. There were no transfers between levels during the years ended December 31, 2018, 2017 and 2016. In addition, for Piedmont, there were no transfers between levels during the two months ended December 31, 2016, and the year ended October 31, 2016.

Valuation methods of the primary fair value measurements disclosed below are as follows.

Investments in equity securities

The majority of investments in equity securities are valued using Level 1 measurements. Investments in equity securities are typically valued at the closing price in the principal active market as of the last business day of the quarter. Principal active markets for equity prices include published exchanges such as the NYSE and the Nasdaq Stock Market. Foreign equity prices are translated from their trading currency using the currency exchange rate in effect at the close of the principal active market. There was no after-hours market activity that was required to be reflected in the reported fair value measurements.

Investments in debt securities

Most investments in debt securities are valued using Level 2 measurements because the valuations use interest rate curves and credit spreads applied to the terms of the debt instrument (maturity and coupon interest rate) and consider the counterparty credit rating. If the market for a particular fixed-income security is relatively inactive or illiquid, the measurement is Level 3.

Commodity derivatives

Commodity derivatives with clearinghouses are classified as Level 1. Other commodity derivatives, including Piedmont's natural gas supply contracts, are primarily valued using internally developed discounted cash flow models that incorporate forward price, adjustments for liquidity (bid-ask spread) and credit or non-performance risk (after reflecting credit enhancements such as collateral), and are discounted to present value. Pricing inputs are derived from published exchange transaction prices and other observable data sources. In the absence of an active market, the last available price may be used. If forward price curves are not observable for the full term of the contract and the unobservable period had more than an insignificant impact on the valuation, the commodity derivative is classified as Level 3. In isolation, increases (decreases) in natural gas forward prices result in favorable (unfavorable) fair value adjustments for natural gas purchase contracts; and increases (decreases) in electricity forward prices result in unfavorable (favorable) fair value adjustments for electricity sales contracts. Duke Energy regularly evaluates and validates pricing inputs used to estimate the fair value of natural gas commodity contracts by a market participant price verification procedure. This procedure provides a comparison of internal forward commodity curves to market participant generated curves.

Interest rate derivatives

Most over-the-counter interest rate contract derivatives are valued using financial models that utilize observable inputs for similar instruments and are classified as Level 2. Inputs include forward interest rate curves, notional amounts, interest rates and credit quality of the counterparties.

Other fair value considerations

See Note 11 for a discussion of the valuation of goodwill and intangible assets.

DUKE ENERGY

The following tables provide recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets. Derivative amounts in the tables below for all Duke Energy Registrants exclude cash collateral, which is disclosed in Note 14. See Note 15 for additional information related to investments by major security type for the Duke Energy Registrants.

	December 31, 2018				
(in millions)	Total Fair Value	Level 1	Level 2	Level 3	Not Categorized
NDTF equity securities	$ 4,475	$ 4,410	$ —	$ —	$ 65
NDTF debt securities	2,231	576	1,655	—	—
Other equity securities	99	99	—	—	—
Other debt securities	270	67	203	—	—
Derivative assets	57	4	25	28	—
Total assets	7,132	5,156	1,883	28	65
Derivative liabilities	(242)	(11)	(90)	(141)	—
Net assets (liabilities)	$ 6,890	$ 5,145	$ 1,793	$ (113)	$ 65

(in millions)	December 31, 2017 Total Fair Value	Level 1	Level 2	Level 3	Not Categorized
NDTF equity securities	$ 4,914	$ 4,840	$ —	$ —	$ 74
NDTF debt securities	2,174	635	1,539	—	—
Other equity securities	123	123	—	—	—
Other debt securities	241	57	184	—	—
Derivative assets	51	3	20	28	—
Total assets	7,503	5,658	1,743	28	74
Derivative liabilities	(230)	(2)	(86)	(142)	—
Net assets (liabilities)	$ 7,273	$ 5,656	$ 1,657	$ (114)	$ 74

The following tables provide reconciliations of beginning and ending balances of assets and liabilities measured at fair value using Level 3 measurements. Amounts included in earnings for derivatives are primarily included in Cost of natural gas on the Duke Energy Registrants' Consolidated Statements of Operations and Comprehensive Income. Amounts included in changes of net assets on the Duke Energy Registrants' Consolidated Balance Sheets are included in regulatory assets or liabilities. All derivative assets and liabilities are presented on a net basis.

	December 31, 2018	December 31, 2017		
(in millions)	Derivatives (net)	Investments	Derivatives (net)	Total
Balance at beginning of period	**$ (114)**	$ 5	$ (166)	$ (161)
Total pretax realized or unrealized gains included in comprehensive income	**—**	1	—	1
Purchases, sales, issuances and settlements:				
Purchases	**57**	—	55	55
Sales	**—**	(6)	—	(6)
Settlements	**(57)**	—	(47)	(47)
Total gains included on the Consolidated Balance Sheet	**1**	—	44	44
Balance at end of period	**$ (113)**	$ —	$ (114)	$ (114)

DUKE ENERGY CAROLINAS

The following tables provide recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

(in millions)	December 31, 2018 Total Fair Value	Level 1	Level 2	Not Categorized
NDTF equity securities	**$ 2,484**	**$ 2,419**	**$ —**	**$ 65**
NDTF debt securities	**1,069**	**149**	**920**	**—**
Derivative assets	**3**	**—**	**3**	**—**
Total assets	**3,556**	**2,568**	**923**	**65**
Derivative liabilities	**(33)**	**—**	**(33)**	**—**
Net assets	**$ 3,523**	**$ 2,568**	**$ 890**	**$ 65**

(in millions)	December 31, 2017 Total Fair Value	Level 1	Level 2	Not Categorized
NDTF equity securities	$ 2,692	$ 2,618	$ —	$ 74
NDTF debt securities	1,066	204	862	—
Derivative assets	2	—	2	—
Total assets	3,760	2,822	864	74
Derivative liabilities	(35)	(1)	(34)	—
Net assets	$ 3,725	$ 2,821	$ 830	$ 74

The following table provides reconciliations of beginning and ending balances of assets and liabilities measured at fair value using Level 3 measurements.

	Investments
	Year Ended December 31,
(in millions)	2017
Balance at beginning of period	$ 3
Total pretax realized or unrealized gains included in comprehensive income	1
Purchases, sales, issuances and settlements:	
Sales	(4)
Balance at end of period	$ —

PROGRESS ENERGY

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
(in millions)	Total Fair Value	Level 1	Level 2	Total Fair Value	Level 1	Level 2
NDTF equity securities	**$ 1,991**	**$ 1,991**	**$ —**	$ 2,222	$ 2,222	$ —
NDTF debt securities	**1,162**	**427**	**735**	1,108	431	677
Other debt securities	**64**	**17**	**47**	59	12	47
Derivative assets	**4**	**—**	**4**	3	1	2
Total assets	**3,221**	**2,435**	**786**	3,392	2,666	726
Derivative liabilities	**(44)**	**—**	**(44)**	(36)	(1)	(35)
Net assets	**$ 3,177**	**$ 2,435**	**$ 742**	$ 3,356	$ 2,665	$ 691

DUKE ENERGY PROGRESS

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
(in millions)	Total Fair Value	Level 1	Level 2	Total Fair Value	Level 1	Level 2
NDTF equity securities	**$ 1,588**	**$ 1,588**	**$ —**	$ 1,795	$ 1,795	$ —
NDTF debt securities	**906**	**294**	**612**	796	243	553
Other debt securities	**6**	**6**	**—**	1	1	—
Derivative assets	**4**	**—**	**4**	2	1	1
Total assets	**2,504**	**1,888**	**616**	2,594	2,040	554
Derivative liabilities	**(27)**	**—**	**(27)**	(18)	(1)	(17)
Net assets	**$ 2,477**	**$ 1,888**	**$ 589**	$ 2,576	$ 2,039	$ 537

DUKE ENERGY FLORIDA

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
(in millions)	Total Fair Value	Level 1	Level 2	Total Fair Value	Level 1	Level 2
NDTF equity securities	**$ 403**	**$ 403**	**$ —**	$ 427	$ 427	$ —
NDTF debt securities	**256**	**133**	**123**	312	188	124
Other debt securities	**48**	**1**	**47**	48	1	47
Derivative assets	**—**	**—**	**—**	1	—	1
Total assets	**707**	**537**	**170**	788	616	172
Derivative liabilities	**(9)**	**—**	**(9)**	(12)	—	(12)
Net assets	**$ 698**	**$ 537**	**$ 161**	$ 776	$ 616	$ 160

DUKE ENERGY OHIO

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
(in millions)	**Total Fair Value**	**Level 2**	**Level 3**	**Total Fair Value**	**Level 2**	**Level 3**
Derivative assets	**$ 6**	**$ —**	**$ 6**	$ 1	$ —	$ 1
Derivative liabilities	**(5)**	**(5)**	**—**	(5)	(5)	—
Net assets (liabilities)	**$ 1**	**$ (5)**	**$ 6**	$ (4)	$ (5)	$ 1

The following table provides a reconciliation of beginning and ending balances of assets and liabilities measured at fair value using Level 3 measurements.

	Derivatives (net)	
	Years Ended December 31,	
(in millions)	**2018**	**2017**
Balance at beginning of period	**$ 1**	$ 5
Purchases, sales, issuances and settlements:		
Purchases	**7**	3
Settlements	**(4)**	(4)
Total gains included on the Consolidated Balance Sheet	**2**	(3)
Balance at end of period	**$ 6**	$ 1

DUKE ENERGY INDIANA

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018				December 31, 2017			
(in millions)	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**
Other equity securities	**$ 67**	**$ 67**	**$ —**	**$ —**	$ 97	$ 97	$ —	$ —
Other debt securities	**41**	**—**	**41**	**—**	31	—	31	—
Derivative assets	**23**	**1**	**—**	**22**	27	—	—	27
Total assets	**$ 131**	**$ 68**	**$ 41**	**$ 22**	$ 155	$ 97	$ 31	$ 27

The following table provides a reconciliation of beginning and ending balances of assets and liabilities measured at fair value using Level 3 measurements.

	Derivatives (net)	
	Years Ended December 31,	
(in millions)	**2018**	**2017**
Balance at beginning of period	**$ 27**	$ 16
Purchases, sales, issuances and settlements:		
Purchases	**50**	52
Settlements	**(53)**	(43)
Total (losses) gains included on the Consolidated Balance Sheet	**(2)**	2
Balance at end of period	**$ 22**	$ 27

PIEDMONT

The following table provides recorded balances for assets and liabilities measured at fair value on a recurring basis on the Consolidated Balance Sheets.

	December 31, 2018			December 31, 2017		
(in millions)	**Total Fair Value**	**Level 1**	**Level 3**	**Total Fair Value**	**Level 1**	**Level 3**
Other debt securities	**$ —**	**$ —**	**$ —**	$ 1	$ 1	$ —
Derivative assets	**3**	**3**	**—**	2	2	—
Total assets	**3**	**3**	**—**	3	3	—
Derivative liabilities	**(141)**	**—**	**(141)**	(142)	—	(142)
Net (liabilities) assets	**$ (138)**	**$ 3**	**$ (141)**	$ (139)	$ 3	$ (142)

The following table provides a reconciliation of beginning and ending balances of assets and liabilities measured at fair value using Level 3 measurements.

	Derivatives (net)	
	Years Ended December 31,	
(in millions)	**2018**	**2017**
Balance at beginning of period	**$ (142)**	$ (187)
Total gains and settlements	**1**	45
Balance at end of period	**$ (141)**	$ (142)

QUANTITATIVE INFORMATION ABOUT UNOBSERVABLE INPUTS

The following tables include quantitative information about the Duke Energy Registrants' derivatives classified as Level 3.

	December 31, 2018			
Investment Type	**Fair Value (in millions)**	**Valuation Technique**	**Unobservable Input**	**Range**
Duke Energy Ohio				
FTRs	**$ 6**	RTO auction pricing	FTR price – per MWh	**$ 1.19 – $ 4.59**
Duke Energy Indiana				
FTRs	**22**	RTO auction pricing	FTR price – per MWh	**(2.07) – 8.27**
Piedmont				
Natural gas contracts	**(141)**	Discounted cash flow	Forward natural gas curves — price per MMBtu	**1.87 – 2.95**
Duke Energy				
Total Level 3 derivatives	**$ (113)**			

	December 31, 2017			
Investment Type	**Fair Value (in millions)**	**Valuation Technique**	**Unobservable Input**	**Range**
Duke Energy Ohio				
FTRs	$ 1	RTO auction pricing	FTR price – per MWh	$ 0.07 – $ 1.41
Duke Energy Indiana				
FTRs	27	RTO auction pricing	FTR price – per MWh	(0.77) – 7.44
Piedmont				
Natural gas contracts	(142)	Discounted cash flow	Forward natural gas curves — price per MMBtu	2.10 – 2.88
Duke Energy				
Total Level 3 derivatives	$ (114)			

OTHER FAIR VALUE DISCLOSURES

The fair value and book value of long-term debt, including current maturities, is summarized in the following table. Estimates determined are not necessarily indicative of amounts that could have been settled in current markets. Fair value of long-term debt uses Level 2 measurements.

	December 31, 2018		December 31, 2017	
(in millions)	**Book Value**	**Fair Value**	**Book Value**	**Fair Value**
Duke Energy[(a)]	**$ 54,529**	**$ 54,534**	$ 52,279	$ 55,331
Duke Energy Carolinas	**10,939**	**11,471**	10,103	11,372
Progress Energy	**18,911**	**19,885**	17,837	20,000
Duke Energy Progress	**8,204**	**8,300**	7,357	7,992
Duke Energy Florida	**7,321**	**7,742**	7,095	7,953
Duke Energy Ohio	**2,165**	**2,239**	2,067	2,249
Duke Energy Indiana	**3,782**	**4,158**	3,783	4,464
Piedmont	**2,138**	**2,180**	2,037	2,209

(a) Book value of long-term debt includes $1.6 billion as of December 31, 2018, and $1.7 billion as of December 31, 2017, of unamortized debt discount and premium, net in purchase accounting adjustments related to the mergers with Progress Energy and Piedmont that are excluded from fair value of long-term debt.

At both December 31, 2018, and December 31, 2017, fair value of cash and cash equivalents, accounts and notes receivable, accounts payable, notes payable and commercial paper, and nonrecourse notes payable of VIEs are not materially different from their carrying amounts because of the short-term nature of these instruments and/or because the stated rates approximate market rates.

17. VARIABLE INTEREST ENTITIES

A VIE is an entity that is evaluated for consolidation using more than a simple analysis of voting control. The analysis to determine whether an entity is a VIE considers contracts with an entity, credit support for an entity, the adequacy of the equity investment of an entity and the relationship of voting power to the amount of equity invested in an entity. This analysis is performed either upon the creation of a legal entity or upon the occurrence of an event requiring reevaluation, such as a significant change in an entity's assets or activities. A qualitative analysis of control determines the party that consolidates a VIE. This assessment is based on (i) what party has the power to direct the activities of the VIE that most significantly impact its economic performance and (ii) what party has rights to receive benefits or is obligated to absorb losses that could potentially be significant to the VIE. The analysis of the party that consolidates a VIE is a continual reassessment.

CONSOLIDATED VIEs

The obligations of these VIEs discussed in the following paragraphs are nonrecourse to the Duke Energy Registrants. The registrants have no requirement to provide liquidity to, purchase assets of or guarantee performance of these VIEs unless noted in the following paragraphs.

No financial support was provided to any of the consolidated VIEs during the years ended December 31, 2018, 2017 and 2016, or is expected to be provided in the future, that was not previously contractually required.

Receivables Financing – DERF/DEPR/DEFR

DERF, DEPR and DEFR are bankruptcy remote, special purpose subsidiaries of Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, respectively. DERF, DEPR and DEFR are wholly owned limited liability companies with separate legal existence from their parent companies and their assets are not generally available to creditors of their parent companies. On a revolving basis, DERF, DEPR and DEFR buy certain accounts receivable arising from the sale of electricity and related services from their parent companies.

DERF, DEPR and DEFR borrow amounts under credit facilities to buy these receivables. Borrowing availability from the credit facilities is limited to the amount of qualified receivables purchased. The sole source of funds to satisfy the related debt obligations is cash collections from the receivables. Amounts borrowed under the credit facilities are reflected on the Consolidated Balance Sheets as Long-Term Debt.

The most significant activity that impacts the economic performance of DERF, DEPR and DEFR are the decisions made to manage delinquent receivables. Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida are considered the primary beneficiaries and consolidate DERF, DEPR and DEFR, respectively, as they make those decisions.

Receivables Financing – CRC

CRC is a bankruptcy remote, special purpose entity indirectly owned by Duke Energy. On a revolving basis, CRC buys certain accounts receivable arising from the sale of electricity, natural gas and related services from Duke Energy Ohio and Duke Energy Indiana. CRC borrows amounts under a credit facility to buy the receivables from Duke Energy Ohio and Duke Energy Indiana. Borrowing availability from the credit facility is limited to the amount of qualified receivables sold to CRC. The sole source of funds to satisfy the related debt obligation is cash collections from the receivables. Amounts borrowed under the credit facility are reflected on Duke Energy's Consolidated Balance Sheets as Long-Term Debt.

The proceeds Duke Energy Ohio and Duke Energy Indiana receive from the sale of receivables to CRC are approximately 75 percent cash and 25 percent in the form of a subordinated note from CRC. The subordinated note is a retained interest in the receivables sold. Depending on collection experience, additional equity infusions to CRC may be required by Duke Energy to maintain a minimum equity balance of $3 million.

CRC is considered a VIE because (i) equity capitalization is insufficient to support its operations, (ii) power to direct the activities that most significantly impact the economic performance of the entity are not performed by the equity holder and (iii) deficiencies in net worth of CRC are funded by Duke Energy. The most significant activities that impact the economic performance of CRC are decisions made to manage delinquent receivables. Duke Energy is considered the primary beneficiary and consolidates CRC as it makes these decisions. Neither Duke Energy Ohio nor Duke Energy Indiana consolidate CRC.

Receivables Financing – Credit Facilities

The following table outlines amounts and expiration dates of the credit facilities described above.

	Duke Energy			
		Duke Energy Carolinas	Duke Energy Progress	Duke Energy Florida
	CRC	DERF	DEPR	DEFR
Expiration date	December 2020	December 2020	February 2021	April 2021
Credit facility amount (in millions)	$ 325	$ 450	$ 300	$ 225
Amounts borrowed at December 31, 2018	325	450	300	225
Amounts borrowed at December 31, 2017	325	450	300	225
Restricted Receivables at December 31, 2018	564	699	547	357
Restricted Receivables at December 31, 2017	545	640	459	317

Nuclear Asset-Recovery Bonds – DEFPF

DEFPF is a bankruptcy remote, wholly owned special purpose subsidiary of Duke Energy Florida. DEFPF was formed in 2016 for the sole purpose of issuing nuclear asset-recovery bonds to finance Duke Energy Florida's unrecovered regulatory asset related to Crystal River Unit 3.

In 2016, DEFPF issued senior secured bonds and used the proceeds to acquire nuclear asset-recovery property from Duke Energy Florida. The nuclear asset-recovery property acquired includes the right to impose, bill, collect and adjust a non-bypassable nuclear asset-recovery charge from all Duke Energy Florida retail customers until the bonds are paid in full and all financing costs have been recovered. The nuclear asset-recovery bonds are secured by the nuclear asset-recovery property and cash collections from the nuclear asset-recovery charges are the sole source of funds to satisfy the debt obligation. The bondholders have no recourse to Duke Energy Florida. For additional information see Notes 4 and 6.

DEFPF is considered a VIE primarily because the equity capitalization is insufficient to support its operations. Duke Energy Florida has the power to direct the significant activities of the VIE as described above and therefore Duke Energy Florida is considered the primary beneficiary and consolidates DEFPF.

The following table summarizes the impact of DEFPF on Duke Energy Florida's Consolidated Balance Sheets.

(in millions)	December 31, 2018	December 31, 2017
Receivables of VIEs	**$ 5**	$ 4
Regulatory Assets: Current	**52**	51
Current Assets: Other	**39**	40
Other Noncurrent Assets: Regulatory assets	**1,041**	1,091
Current Liabilities: Other	**10**	10
Current maturities of long-term debt	**53**	53
Long-Term Debt	**1,111**	1,164

Commercial Renewables

Certain of Duke Energy’s renewable energy facilities are VIEs due to Duke Energy issuing guarantees for debt service and operations and maintenance reserves in support of debt financings. Assets are restricted and cannot be pledged as collateral or sold to third parties without prior approval of debt holders. Additionally, Duke Energy has VIEs associated with tax equity arrangements entered into with third–party investors in order to finance the cost of solar energy systems eligible for tax credits. The activities that most significantly impacted the economic performance of these renewable energy facilities were decisions associated with siting, negotiating PPAs and EPC agreements, and decisions associated with ongoing operations and maintenance-related activities. Duke Energy is considered the primary beneficiary and consolidates the entities as it is responsible for all of these decisions.

The table below presents material balances reported on Duke Energy's Consolidated Balance Sheets related to renewables VIEs.

(in millions)	December 31, 2018	December 31, 2017
Current Assets: Other	**$ 123**	$ 174
Property, plant and equipment, cost	**4,007**	3,923
Accumulated depreciation and amortization	**(698)**	(591)
Other Noncurrent Assets: Other	**261**	50
Current maturities of long-term debt	**174**	170
Long-Term Debt	**1,587**	1,700
Other Noncurrent Liabilities: Deferred income taxes	**—**	(148)
Other Noncurrent Liabilities: Asset Retirement Obligations	**106**	83
Other Noncurrent Liabilities: Other	**212**	241

NON-CONSOLIDATED VIEs

The following tables summarize the impact of non-consolidated VIEs on the Consolidated Balance Sheets.

	December 31, 2018					
	Duke Energy				Duke	Duke
(in millions)	Pipeline Investments	Commercial Renewables	Other VIEs	Total	Energy Ohio	Energy Indiana
Receivables from affiliated companies	**$ —**	**$ —**	**$ —**	**$ —**	**$ 93**	**$ 118**
Investments in equity method unconsolidated affiliates	**822**	**190**	**48**	**1,060**	**—**	**—**
Total assets	**$ 822**	**$ 190**	**$ 48**	**$ 1,060**	**$ 93**	**$ 118**
Taxes accrued	**(1)**	**—**	**—**	**(1)**	**—**	**—**
Other current liabilities	**—**	**—**	**4**	**4**	**—**	**—**
Deferred income taxes	**21**	**—**	**—**	**21**	**—**	**—**
Other noncurrent liabilities	**—**	**—**	**12**	**12**	**—**	**—**
Total liabilities	**$ 20**	**$ —**	**$ 16**	**$ 36**	**$ —**	**$ —**
Net assets	**$ 802**	**$ 190**	**$ 32**	**$ 1,024**	**$ 93**	**$ 118**

	December 31, 2017					
	Duke Energy				Duke	Duke
(in millions)	Pipeline Investments	Commercial Renewables	Other VIEs	Total	Energy Ohio	Energy Indiana
Receivables from affiliated companies	$ —	$ —	$ —	$ —	$ 87	$ 106
Investments in equity method unconsolidated affiliates	697	180	42	919	—	—
Other noncurrent assets	17	—	—	17	—	—
Total assets	$ 714	$ 180	$ 42	$ 936	$ 87	$ 106
Taxes accrued	(29)	—	—	(29)	—	—
Other current liabilities	—	—	4	4	—	—
Deferred income taxes	42	—	—	42	—	—
Other noncurrent liabilities	—	—	12	12	—	—
Total liabilities	$ 13	$ —	$ 16	$ 29	$ —	$ —
Net assets	$ 701	$ 180	$ 26	$ 907	$ 87	$ 106

The Duke Energy Registrants are not aware of any situations where the maximum exposure to loss significantly exceeds the carrying values shown above except for the power purchase agreement with OVEC, which is discussed below, and various guarantees, including Duke Energy's guarantee agreement to support its share of the ACP revolving credit facility. Duke Energy's maximum exposure to loss under the terms of the guarantee is $677 million as of December 31, 2018. For more information on various guarantees, refer to Note 7.

Pipeline Investments

Duke Energy has investments in various joint ventures with pipeline projects currently under construction. These entities are considered VIEs due to having insufficient equity to finance their own activities without subordinated financial support. Duke Energy does not have the power to direct the activities that most significantly impact the economic performance, the obligation to absorb losses or the right to receive benefits of these VIEs and therefore does not consolidate these entities.

The table below presents Duke Energy's ownership interest and investment balance in these joint ventures.

		Investment Amount (in millions)	
Entity Name	Ownership Interest	December 31, 2018	December 31, 2017
ACP	47%	**$ 797**	$ 397
Sabal Trail[(a)]	7.5%	**—**	219
Constitution[(b)]	24%	**25**	81
Total		**$ 822**	$ 697

(a) At December 31, 2017, Sabal Trail was considered a VIE due to having insufficient equity to finance their own activities without subordinated financial support. However, Sabal Trail is now a fully operational, well capitalized entity. As a result, Sabal Trail has sufficient equity to finance its own activities, and therefore, is no longer considered a VIE. Duke Energy's investment in Sabal Trail was $112 million at December 31, 2018.

(b) During the year ended December 31, 2018, Duke Energy recorded an OTTI of $55 million related to Constitution within Equity in earnings of unconsolidated affiliates on Duke Energy's Consolidated Statements of Income. See Note 4 for additional information.

Commercial Renewables

Duke Energy has investments in various renewable energy project entities. Some of these entities are VIEs due to Duke Energy issuing guarantees for debt service and operations and maintenance reserves in support of debt financings. Duke Energy does not consolidate these VIEs because power to direct and control key activities is shared jointly by Duke Energy and other owners.

Pioneer

Duke Energy holds a 50 percent equity interest in Pioneer. Pioneer is considered a VIE due to having insufficient equity to finance their own activities without subordinated financial support. The activities that most significantly impact Pioneer's economic performance are decisions related to the development of new transmission facilities. The power to direct these activities is jointly and equally shared by Duke Energy and the other joint venture partner, American Electric Power; therefore, Duke Energy does not consolidate Pioneer.

OVEC

Duke Energy Ohio’s 9 percent ownership interest in OVEC is considered a non-consolidated VIE due to having insufficient equity to finance its activities without subordinated financial support. The activities that most significantly impact OVEC's economic performance include fuel strategy and supply activities and decisions associated with ongoing operations and maintenance-related activities. Duke Energy Ohio does not have the unilateral power to direct these activities, and therefore, does not consolidate OVEC.

As a counterparty to an ICPA, Duke Energy Ohio has a contractual arrangement to receive entitlements to capacity and energy from OVEC’s power plants through June 2040 commensurate with its power participation ratio, which is equivalent to Duke Energy Ohio's ownership interest. Costs, including fuel, operating expenses, fixed costs, debt amortization, and interest expense, are allocated to counterparties to the ICPA based on their power participation ratio. The value of the ICPA is subject to variability due to fluctuation in power prices and changes in OVEC's cost of business. On March 31, 2018, FES, a subsidiary of FirstEnergy and an ICPA counterparty with a power participation ratio of 4.85 percent, filed for Chapter 11 bankruptcy, which could increase costs allocated to the counterparties. On July 31, 2018, the bankruptcy court rejected the FES ICPA, which means OVEC is an unsecured creditor in the FES bankruptcy proceeding. Duke Energy Ohio cannot predict the impact of the bankruptcy filing on its OVEC interests. In addition, certain proposed environmental rulemaking could result in future increased OVEC cost allocations. See Note 4 for additional information.

CRC

See discussion under Consolidated VIEs for additional information related to CRC.

Amounts included in Receivables from affiliated companies in the above table for Duke Energy Ohio and Duke Energy Indiana reflect their retained interest in receivables sold to CRC. These subordinated notes held by Duke Energy Ohio and Duke Energy Indiana are stated at fair value. Carrying values of retained interests are determined by allocating carrying value of the receivables between assets sold and interests retained based on relative fair value. The allocated bases of the subordinated notes are not materially different than their face value because (i) the receivables generally turnover in less than two months, (ii) credit losses are reasonably predictable due to the broad customer base and lack of significant concentration and (iii) the equity in CRC is subordinate to all retained interests and thus would absorb losses first. The hypothetical effect on fair value of the retained interests assuming both a 10 percent and a 20 percent unfavorable variation in credit losses or discount rates is not material due to the short turnover of receivables and historically low credit loss history. Interest accrues to Duke Energy Ohio and Duke Energy Indiana on the retained interests using the acceptable yield method. This method generally approximates the stated rate on the notes since the allocated basis and the face value are nearly equivalent. An impairment charge is recorded against the carrying value of both retained interests and purchased beneficial interest whenever it is determined that an OTTI has occurred.

Key assumptions used in estimating fair value are detailed in the following table.

	Duke Energy Ohio		Duke Energy Indiana	
	2018	2017	2018	2017
Anticipated credit loss ratio	**0.5%**	0.5%	**0.3%**	0.3%
Discount rate	**3.0%**	2.1%	**3.0%**	2.1%
Receivable turnover rate	**13.5%**	13.5%	**11.0%**	10.7%

The following table shows the gross and net receivables sold.

	Duke Energy Ohio		Duke Energy Indiana	
(in millions)	**2018**	**2017**	**2018**	**2017**
Receivables sold	**$ 269**	$ 273	**$ 336**	$ 312
Less: Retained interests	**93**	87	**118**	106
Net receivables sold	**$ 176**	$ 186	**$ 218**	$ 206

The following table shows sales and cash flows related to receivables sold.

	Duke Energy Ohio			Duke Energy Indiana		
	Years Ended December 31,			Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
Sales						
Receivables sold	**$ 1,987**	$ 1,879	$ 1,926	**$ 2,842**	$ 2,711	$ 2,635
Loss recognized on sale	**13**	10	9	**16**	12	11
Cash Flows						
Cash proceeds from receivables sold	**1,967**	1,865	1,882	**2,815**	2,694	2,583
Collection fees received	**1**	1	1	**1**	1	1
Return received on retained interests	**6**	3	2	**9**	7	5

Cash flows from the sales of receivables are reflected within Cash Flows From Operating Activities on Duke Energy Ohio's and Duke Energy Indiana's Consolidated Statements of Cash Flows.

Collection fees received in connection with servicing transferred accounts receivable are included in Operation, maintenance and other on Duke Energy Ohio's and Duke Energy Indiana's Consolidated Statements of Operations and Comprehensive Income. The loss recognized on sales of receivables is calculated monthly by multiplying receivables sold during the month by the required discount. The required discount is derived monthly utilizing a three-year weighted average formula that considers charge-off history, late charge history and turnover history on the sold receivables, as well as a component for the time value of money. The discount rate, or component for the time value of money, is the prior month-end LIBOR plus a fixed rate of 1.00 percent.

18. REVENUE

As described in Note 1, Duke Energy adopted Revenue from Contracts with Customers effective January 1, 2018, using the modified retrospective method of adoption, which does not require restatement of prior year reported results. No cumulative effect adjustment was recorded as the vast majority of Duke Energy's revenues are at-will and without a defined contractual term. Additionally, comparative disclosures for 2018 operating results with the previous revenue recognition rules are not applicable as Duke Energy's revenue recognition has not materially changed as a result of the new standard.

Duke Energy recognizes revenue consistent with amounts billed under tariff offerings or at contractually agreed upon rates based on actual physical delivery of electric or natural gas service, including estimated volumes delivered when billings have not yet occurred. As such, the majority of Duke Energy's revenues have fixed pricing based on the contractual terms of the published tariffs, with variability in expected cash flows attributable to the customer's volumetric demand and ultimate quantities of energy or natural gas supplied and used during the billing period. The stand-alone selling price of related sales are designed to support recovery of prudently incurred costs and an appropriate return on invested assets and are primarily governed by published tariff rates or contractual agreements approved by relevant regulatory bodies. As described in Note 1, certain excise taxes and franchise fees levied by state or local governments are required to be paid even if not collected from the customer. These taxes are recognized on a gross basis as part of revenues. Duke Energy elects to account for all other taxes net of revenues.

Performance obligations are satisfied over time as energy or natural gas is delivered and consumed with billings generally occurring monthly and related payments due within 30 days, depending on regulatory requirements. In no event does the timing between payment and delivery of the goods and services exceed one year. Using this output method for revenue recognition provides a faithful depiction of the transfer of electric and natural gas service as customers obtain control of the commodity and benefit from its use at delivery. Additionally, Duke Energy has an enforceable right to consideration for energy or natural gas delivered at any discrete point in time, and will recognize revenue at an amount that reflects the consideration to which Duke Energy is entitled for the energy or natural gas delivered.

As described above, the majority of Duke Energy's tariff revenues are at-will and, as such, related contracts with customers have an expected duration of one year or less and will not have future performance obligations for disclosure. Additionally, other long-term revenue streams, including wholesale contracts, generally provide services that are part of a single performance obligation, the delivery of electricity or natural gas. As such, other than material fixed consideration under long-term contracts, related disclosures for future performance obligations are also not applicable.

Duke Energy earns substantially all of its revenues through its reportable segments, Electric Utilities and Infrastructure, Gas Utilities and Infrastructure and Commercial Renewables.

Electric Utilities and Infrastructure

Electric Utilities and Infrastructure earns the majority of its revenues through retail and wholesale electric service through the generation, transmission, distribution and sale of electricity. Duke Energy generally provides retail and wholesale electric service customers with their full electric load requirements or with supplemental load requirements when the customer has other sources of electricity.

Retail electric service is generally marketed throughout Duke Energy's electric service territory through standard service offers. The standard service offers are through tariffs determined by regulators in Duke Energy's regulated service territory. Each tariff, which is assigned to customers based on customer class, has multiple components such as an energy charge, a demand charge, a basic facilities charge and applicable riders. Duke Energy considers each of these components to be aggregated into a single performance obligation for providing electric service, or in the case of distribution only customers in Duke Energy Ohio, for delivering electricity. Electricity is considered a single performance obligation satisfied over time consistent with the series guidance and is provided and consumed over the billing period, generally one month. Retail electric service is typically provided to at-will customers who can cancel service at any time, without a substantive penalty. Additionally, Duke Energy adheres to applicable regulatory requirements in each jurisdiction to ensure the collectability of amounts billed and appropriate mitigating procedures are followed when necessary. As such, revenue from contracts with customers for such contracts is equivalent to the electricity supplied and billed in that period (including unbilled estimates).

Wholesale electric service is generally provided under long-term contracts using cost-based pricing. FERC regulates costs that may be recovered from customers and the amount of return companies are permitted to earn. Wholesale contracts include both energy and demand charges. For full requirements contracts, Duke Energy considers both charges as a single performance obligation for providing integrated electric service. For contracts where energy and demand charges are considered separate performance obligations, energy and demand are each a distinct performance obligation under the series guidance and are satisfied as energy is delivered and stand-ready service is provided on a monthly basis. This service represents consumption over the billing period and revenue is recognized consistent with billings and unbilled estimates, which generally occur monthly. Contractual amounts owed are typically trued up annually based upon incurred costs in accordance with FERC published filings and the specific customer's actual peak demand. Estimates of variable consideration related to potential additional billings or refunds owed are updated quarterly.

The majority of wholesale revenues are full requirements contracts where the customers purchase the substantial majority of their energy needs and do not have a fixed quantity of contractually required energy or capacity. As such, related forecasted revenues are considered optional purchases. Supplemental requirements contracts that include contracted blocks of energy and capacity at contractually fixed prices have the following estimated remaining performance obligations:

	Remaining Performance Obligations						
(in millions)	**2019**	**2020**	**2021**	**2022**	**2023**	**Thereafter**	**Total**
Progress Energy	$ 112	$ 121	$ 80	$ 82	$ 39	$ 42	$ 476
Duke Energy Progress	9	9	9	9	9	9	54
Duke Energy Florida	103	112	71	73	30	33	422
Duke Energy Indiana	9	10	5	—	—	—	24

Revenues for block sales are recognized monthly as energy is delivered and stand-ready service is provided, consistent with invoiced amounts and unbilled estimates.

Gas Utilities and Infrastructure

Gas Utilities and Infrastructure earns its revenue through retail and wholesale natural gas service through the transportation, distribution and sale of natural gas. Duke Energy generally provides retail and wholesale natural gas service customers with all natural gas load requirements. Additionally, while natural gas can be stored, substantially all natural gas provided by Duke Energy is consumed by customers simultaneously with receipt of delivery.

Retail natural gas service is marketed throughout Duke Energy's natural gas service territory using published tariff rates. The tariff rates are established by regulators in Duke Energy's service territories. Each tariff, which is assigned to customers based on customer class, have multiple components, such as a commodity charge, demand charge, customer or monthly charge and transportation costs. Duke Energy considers each of these components to be aggregated into a single performance obligation for providing natural gas service. For contracts where Duke Energy provides all of the customer's natural gas needs, the delivery of natural gas is considered a single performance obligation satisfied over time, and revenue is recognized monthly based on billings and unbilled estimates as service is provided and the commodity is consumed over the billing period. Additionally, natural gas service is typically at-will and customers can cancel service at any time, without a substantive penalty. Duke Energy also adheres to applicable regulatory requirements to ensure the collectability of amounts billed and receivable and appropriate mitigating procedures are followed when necessary.

Certain long-term individually negotiated contracts exist to provide natural gas service. These contracts are regulated and approved by state commissions. The negotiated contracts have multiple components, including a natural gas and a demand charge, similar to retail natural gas contracts. Duke Energy considers each of these components to be a single performance obligation for providing natural gas service. This service represents consumption over the billing period, generally one month.

Fixed capacity payments under long-term contracts for the Gas Utilities and Infrastructure segment include minimum margin contracts and supply arrangements with municipalities and power generation facilities. Revenues for related sales are recognized monthly as natural gas is delivered and stand-ready service is provided, consistent with invoiced amounts and unbilled estimates. Estimated remaining performance obligations are as follows:

	Remaining Performance Obligations						
(in millions)	2019	2020	2021	2022	2023	Thereafter	Total
Piedmont	$ 70	$ 68	$ 63	$ 63	$ 60	$ 430	$ 754

Commercial Renewables

Commercial Renewables earns the majority of its revenues through long-term PPAs and generally sells all of its wind and solar facility output, electricity and RECs to customers. The majority of these PPAs have historically been accounted for as leases. For PPAs that are not accounted for as leases, the delivery of electricity and the delivery of RECs are considered separate performance obligations.

The delivery of electricity is a performance obligation satisfied over time and represents generation and consumption of the electricity over the billing period, generally one month. The delivery of RECs is a performance obligation satisfied at a point in time and represents delivery of each REC generated by the wind or solar facility. The majority of self-generated RECs are bundled with energy in Duke Energy's contracts and, as such, related revenues are recognized as energy is generated and delivered as that pattern is consistent with Duke Energy's performance. Commercial Renewables recognizes revenue based on the energy generated and billed for the period, generally one month, at contractual rates (including unbilled estimates) according to the invoice practical expedient. Amounts are typically due within 30 days of invoice.

Commercial Renewables also earns revenues from installation of distributed solar generation resources, which is primarily composed of EPC projects to deliver functioning solar power systems, generally completed within two to 12 months from commencement of construction. The installation of distributed solar generation resources is a performance obligation that is satisfied over time. Revenue from fixed-price EPC contracts is recognized using the input method as work is performed based on the estimated ratio of incurred costs to estimated total costs.

Other

The remainder of Duke Energy's operations is presented as Other, which does not include material revenues from contracts with customers.

Disaggregated Revenues

For the Electric and Gas Utility and Infrastructure segments, revenue by customer class is most meaningful to Duke Energy as each respective customer class collectively represents unique customer expectations of service, generally has different energy and demand requirements, and operates under tailored, regulatory approved pricing structures. Additionally, each customer class is impacted differently by weather and a variety of economic factors including the level of population growth, economic investment, employment levels, and regulatory activities in each of Duke Energy's jurisdictions. As such, analyzing revenues disaggregated by customer class allows Duke Energy to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. For the Commercial Renewables segment, the majority of revenues from contracts with customers are from selling all of the unit-contingent output at contractually defined pricing under long-term PPAs with consistent expectations regarding the timing and certainty of cash flows. Disaggregated revenues are presented as follows:

	Year Ended December 31, 2018							
(in millions) By market or type of customer	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Electric Utilities and Infrastructure								
Residential	$ 9,587	$ 2,981	$ 4,785	$ 2,019	$ 2,766	$ 743	$ 1,076	$ —
General	6,127	2,119	2,809	1,280	1,529	422	778	—
Industrial	2,974	1,180	904	642	262	131	760	—
Wholesale	2,324	508	1,462	1,303	159	57	298	—
Other revenues	717	320	502	320	182	73	91	—
Total Electric Utilities and Infrastructure revenue from contracts with customers	$ 21,729	$ 7,108	$ 10,462	$ 5,564	$ 4,898	$ 1,426	$ 3,003	$ —
Gas Utilities and Infrastructure								
Residential	$ 1,000	$ —	$ —	$ —	$ —	$ 331	$ —	$ 669
Commercial	514	—	—	—	—	135	—	378
Industrial	147	—	—	—	—	18	—	128
Power Generation	—	—	—	—	—	—	—	54
Other revenues	139	—	—	—	—	19	—	120
Total Gas Utilities and Infrastructure revenue from contracts with customers	$ 1,800	$ —	$ —	$ —	$ —	$ 503	$ —	$ 1,349
Commercial Renewables								
Revenue from contracts with customers	$ 209	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Other								
Revenue from contracts with customers	$ 19	$ —	$ —	$ —	$ —	$ 1	$ —	$ —
Total revenue from contracts with customers	$ 23,757	$ 7,108	$ 10,462	$ 5,564	$ 4,898	$ 1,930	$ 3,003	$ 1,349
Other revenue sources[(a)]	$ 764	$ 192	$ 266	$ 135	$ 123	$ 27	$ 56	$ 26
Total revenues	$ 24,521	$ 7,300	$ 10,728	$ 5,699	$ 5,021	$ 1,957	$ 3,059	$ 1,375

(a) Other revenue sources include revenues from leases, derivatives and alternative revenue programs that are not considered revenues from contracts with customers. Alternative revenue programs in certain jurisdictions include regulatory mechanisms that periodically adjust for over or under collection of related revenues.

IMPACT OF WEATHER AND THE TIMING OF BILLING PERIODS

Revenues and costs are influenced by seasonal weather patterns. Peak sales of electricity occur during the summer and winter months, which results in higher revenue and cash flows during these periods. By contrast, lower sales of electricity occur during the spring and fall, allowing for scheduled plant maintenance. Residential and general service customers are more impacted by weather than industrial customers. Estimated weather impacts are based on actual current period weather compared to normal weather conditions. Normal weather conditions are defined as the long-term average of actual historical weather conditions. Heating-degree days measure the variation in weather based on the extent the average daily temperature falls below a base temperature. Cooling-degree days measure the variation in weather based on the extent the average daily temperature rises above the base temperature. Each degree of temperature below the base temperature counts as one heating-degree day and each degree of temperature above the base temperature counts as one cooling-degree day.

The estimated impact of weather on earnings for Electric Utilities and Infrastructure is based on the temperature variances from a normal condition and customers' historic usage patterns. The methodology used to estimate the impact of weather does not consider all variables that may impact customer response to weather conditions, such as humidity in the summer or wind chill in the winter. The precision of this estimate may also be impacted by applying long-term weather trends to shorter-term periods.

Gas Utilities and Infrastructure's costs and revenues are influenced by seasonal patterns due to peak natural gas sales occurring during the winter months as a result of space heating requirements. Residential customers are the most impacted by weather. There are certain regulatory mechanisms for the North Carolina, South Carolina, Tennessee and Ohio service territories that normalize the margins collected from certain customer classes during the winter. In North Carolina, rate design provides protection from both weather and other usage variations such as conservation, while South Carolina and Tennessee revenues are adjusted solely based on weather. Ohio primarily employs a fixed charge each month regardless of the season and usage.

UNBILLED REVENUE

Unbilled revenues are recognized by applying customer billing rates to the estimated volumes of energy or natural gas delivered but not yet billed. Unbilled revenues can vary significantly from period to period as a result of seasonality, weather, customer usage patterns, customer mix, average price in effect for customer classes, timing of rendering customer bills and meter reading schedules, and the impact of weather normalization or margin decoupling mechanisms.

Unbilled revenues are included within Receivables and Receivables of VIEs on the Consolidated Balance Sheets as shown in the following table.

	December 31,	
(in millions)	**2018**	**2017**
Duke Energy	**$ 896**	$ 944
Duke Energy Carolinas	**313**	342
Progress Energy	**244**	228
Duke Energy Progress	**148**	143
Duke Energy Florida	**96**	85
Duke Energy Ohio	**2**	4
Duke Energy Indiana	**23**	21
Piedmont	**73**	86

Additionally, Duke Energy Ohio and Duke Energy Indiana sell, on a revolving basis, nearly all of their retail accounts receivable, including receivables for unbilled revenues, to an affiliate, CRC and accounts for the transfers of receivables as sales. Accordingly, the receivables sold are not reflected on the Consolidated Balance Sheets of Duke Energy Ohio and Duke Energy Indiana. See Note 17 for further information. These receivables for unbilled revenues are shown in the table below.

	December 31,	
(in millions)	**2018**	**2017**
Duke Energy Ohio	**$ 86**	$ 104
Duke Energy Indiana	**128**	132

19. COMMON STOCK

Basic EPS is computed by dividing net income attributable to Duke Energy common stockholders, as adjusted for distributed and undistributed earnings allocated to participating securities, by the weighted average number of common shares outstanding during the period. Diluted EPS is computed by dividing net income attributable to Duke Energy common stockholders, as adjusted for distributed and undistributed earnings allocated to participating securities, by the diluted weighted average number of common shares outstanding during the period. Diluted EPS reflects the potential dilution that could occur if securities or other agreements to issue common shares, such as stock options and equity forward sale agreements, were exercised or settled. Duke Energy’s participating securities are restricted stock units that are entitled to dividends declared on Duke Energy common stock during the restricted stock unit’s vesting periods.

The following table presents Duke Energy's basic and diluted EPS calculations and reconciles the weighted average number of common stock outstanding to the diluted weighted average number of common stock outstanding.

	Years Ended December 31,		
(in millions, except per share amounts)	**2018**	**2017**	**2016**
Income from continuing operations attributable to Duke Energy common stockholders excluding impact of participating securities	**$ 2,642**	$ 3,059	$ 2,567
Weighted average shares outstanding – basic	**708**	700	691
Weighted average shares outstanding – diluted	**708**	700	691
Earnings per share from continuing operations attributable to Duke Energy common stockholders			
Basic	**$ 3.73**	$ 4.37	$ 3.71
Diluted	**$ 3.73**	$ 4.37	$ 3.71
Potentially dilutive items excluded from the calculation[(a)]	**2**	2	2
Dividends declared per common share	**$ 3.64**	$ 3.49	$ 3.36

(a) Performance stock awards were not included in the dilutive securities calculation because the performance measures related to the awards had not been met.

Equity Issuances

On February 20, 2018, Duke Energy filed a prospectus supplement and executed an EDA under which it may sell up to $1 billion of its common stock through an ATM offering program, including an equity forward sales component. The EDA was entered into with Wells Fargo Securities, LLC, Citigroup Global Markets Inc., and J.P. Morgan Securities LLC (the Agents). Under the terms of the EDA, Duke Energy may issue and sell, through any of the Agents, shares of common stock during the period ending September 23, 2019. In June 2018, Duke Energy marketed two separate tranches, each for 1.3 million shares, of common stock. The first tranche was marketed with Wells Fargo Bank at an initial forward price of $72.02 per share and the second tranche was marketed with Citibank at an initial forward price of $78.71 per share through equity forward transactions under the ATM program. The Equity Forwards require Duke Energy to either physically settle the transactions by issuing 2.6 million shares in exchange for net proceeds at the then-applicable forward sale price specified by the agreements or net settle in whole or in part through the delivery or receipt of cash or shares. The settlement alternative was at Duke Energy's election. In December 2018, Duke Energy physically settled these equity forwards by delivering 2.6 million shares of common stock in exchange for net proceeds of approximately $195 million.

Separately, in March 2018, Duke Energy marketed an equity offering of 21.3 million shares of common stock through an Underwriting Agreement with Credit Suisse Securities (USA) LLC, J.P. Morgan Securities LLC, Barclays Capital Inc. and Goldman Sachs & Co. LLC, as representatives of several underwriters, Credit Suisse Capital LLC and J.P. Morgan Securities LLC as Forward Sellers, and Credit Suisse Capital LLC and J.P. Morgan Chase Bank, National Association, acting as forward purchasers. In connection with the offering, Duke Energy entered into equity forward sale agreements with Credit Suisse Securities (USA) LLC as Agent for Credit Suisse Capital LLC and J.P. Morgan Chase Bank, National Association. The sale price was $75 per share less certain net adjustments for an initial forward price of $74.07 per share. The Equity Forwards require Duke Energy to either physically settle the transactions by issuing 21.3 million shares in exchange for net proceeds at the then-applicable forward sale price specified by the agreements, or net settle in whole or in part through the delivery or receipt of cash or shares. The settlement alternative was at Duke Energy's election. In June 2018, Duke Energy physically settled one-half of the equity forwards by delivering approximately 10.6 million shares of common stock in exchange for net cash proceeds of approximately $781 million. In December 2018, Duke Energy physically settled the remaining equity forward by delivering 10.6 million shares of common stock in exchange for net cash proceeds of approximately $766 million.

For the year ended December 31, 2018, Duke Energy issued 2.2 million shares through its DRIP with an increase in additional paid-in capital of approximately $174 million.

In March 2016, Duke Energy marketed an equity offering of 10.6 million shares of common stock. In lieu of issuing equity at the time of the offering, Duke Energy entered into Equity Forwards with Barclays. The Equity Forwards required Duke Energy to either physically settle the transactions by issuing 10.6 million shares, or net settle in whole or in part through the delivery or receipt of cash or shares. On October 5, 2016, following the close of the Piedmont acquisition, Duke Energy physically settled the Equity Forwards in full by delivering 10.6 million shares of common stock in exchange for net cash proceeds of approximately $723 million. The net proceeds were used to finance a portion of the Piedmont acquisition. As a result of the acquisition, all of Piedmont's issued and outstanding stock became the issued and outstanding shares of a wholly owned subsidiary of Duke Energy. See Note 2 for additional information related to the Piedmont acquisition.

20. SEVERANCE

During 2018, Duke Energy reviewed its operations and identified opportunities for improvement to better serve its customers. This operational review included the company's workforce strategy and staffing levels to ensure the company is staffed with the right skillsets and number of teammates to execute the long-term vision for Duke Energy. As such, Duke Energy extended voluntary and involuntary severance benefits to certain employees in specific areas as a part of workforce planning and digital transformation efforts.

During 2016, Duke Energy and Piedmont announced severance plans covering certain eligible employees whose employment will be involuntarily terminated without cause as a result of Duke Energy's acquisition of Piedmont. These reductions continued into 2017 and were a part of the synergies expected to be realized with the acquisition. Refer to Note 2 for additional information on the Piedmont acquisition.

Severance benefit charges for initiatives and plans discussed above were accrued for a total of approximately 1,900 employees in 2018, 100 employees in 2017 and 600 employees in 2016. The following table presents the direct and allocated severance and related charges recorded by the Duke Energy Registrants. Amounts are included within Operation, maintenance and other on the Consolidated Statements of Operations.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont[a]
Year Ended December 31, 2018	**$ 187**	**$ 102**	**$ 69**	**$ 52**	**$ 17**	**$ 6**	**$ 7**	**$ 2**
Year Ended December 31, 2017	15	2	2	1	1	—	1	9
Year Ended December 31, 2016	118	39	40	23	17	3	7	

(a) Piedmont severance benefit charges were $3 million for the two months ended December 31, 2016, and $19 million for the year ended October 31, 2016.

The table below presents the severance liability for past and ongoing severance plans including the plans described above.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Balance at December 31, 2017	$ 19	$ 5	$ 2	$ 1	$ —	$ —	$ —	$ 5
Provision/Adjustments	**200**	**98**	**50**	**40**	**10**	**2**	**2**	**—**
Cash Reductions	**(14)**	**(3)**	**(1)**	**—**	**(1)**	**—**	**—**	**(5)**
Balance at December 31, 2018	**$ 205**	**$ 100**	**$ 51**	**$ 41**	**$ 9**	**$ 2**	**$ 2**	**$ —**

21. STOCK-BASED COMPENSATION

The 2015 Plan provides for the grant of stock-based compensation awards to employees and outside directors. The 2015 Plan reserves 10 million shares of common stock for issuance. Duke Energy has historically issued new shares upon exercising or vesting of share-based awards. However, Duke Energy may use a combination of new share issuances and open market repurchases for share-based awards that are exercised or vest in the future. Duke Energy has not determined with certainty the amount of such new share issuances or open market repurchases.

The following table summarizes the total expense recognized by the Duke Energy Registrants, net of tax, for stock-based compensation.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Duke Energy	**$ 56**	$ 43	$ 35
Duke Energy Carolinas	**20**	15	12
Progress Energy	**21**	16	12
Duke Energy Progress	**13**	10	7
Duke Energy Florida	**8**	6	5
Duke Energy Ohio	**4**	3	2
Duke Energy Indiana	**5**	4	3
Piedmont[a]	**3**	3	

(a) Piedmont's stock-based compensation costs were not material for the two months ended December 31, 2016. See discussion below for information on Piedmont's pre-merger stock-based compensation plans.

Duke Energy's pretax stock-based compensation costs, the tax benefit associated with stock-based compensation expense and stock-based compensation costs capitalized are included in the following table.

	Years Ended December 31,		
(in millions)	**2018**	**2017**	**2016**
Restricted stock unit awards	**$ 43**	$ 41	$ 36
Performance awards	**35**	27	19
Pretax stock-based compensation cost	**$ 78**	$ 68	$ 55
Stock-based compensation costs capitalized	**5**	4	2
Stock-based compensation expense	**$ 73**	$ 64	$ 53
Tax benefit associated with stock-based compensation expense	**$ 17**	$ 25	$ 20

RESTRICTED STOCK UNIT AWARDS

RSU awards generally vest over periods from immediate to three years. Fair value amounts are based on the market price of Duke Energy's common stock on the grant date. The following table includes information related to RSU awards.

	Years Ended December 31,		
	2018	**2017**	**2016**
Shares awarded (in thousands)	**649**	583	684
Fair value (in millions)	**$ 49**	$ 47	$ 52

The following table summarizes information about RSU awards outstanding.

	Shares (in thousands)	**Weighted Average Grant Date Fair Value (per share)**
Outstanding at December 31, 2017	1,121	$ 78
Granted	**649**	**76**
Vested	**(545)**	**78**
Forfeited	**(72)**	**77**
Outstanding at December 31, 2018	**1,153**	**77**
Restricted stock unit awards expected to vest	**1,101**	**77**

The total grant date fair value of shares vested during the years ended December 31, 2018, 2017 and 2016, was $43 million, $42 million and $38 million, respectively. At December 31, 2018, Duke Energy had $29 million of unrecognized compensation cost, which is expected to be recognized over a weighted average period of 23 months.

PERFORMANCE AWARDS

Stock-based performance awards generally vest after three years if performance targets are met. The actual number of shares issued will range from zero to 200 percent of target shares, depending on the level of performance achieved.

Performance awards contain market conditions based on relative TSR compared to a predefined peer group, as well as a performance condition based on Duke Energy's cumulative adjusted EPS. Performance awards granted in 2018 and 2017 also contain a performance condition based on the total incident case rate, one of our key employee safety metrics.

The market condition component of Duke Energy's performance awards is valued using a path-dependent model that incorporates expected relative TSR into the fair value determination of Duke Energy’s performance-based share awards. The model uses three-year historical volatilities and correlations for all companies in the predefined peer group, including Duke Energy, to simulate Duke Energy’s relative TSR as of the end of the performance period. For each simulation, Duke Energy’s relative TSR associated with the simulated stock price at the end of the performance period plus expected dividends within the period results in a value per share for the award portfolio. The average of these simulations is the expected portfolio value per share. Actual life to date results of Duke Energy’s relative TSR for each grant are incorporated within the model. For performance awards granted in 2018, the model used a risk-free interest rate of 2.4 percent, which reflects the yield on three-year Treasury bonds as of the grant date, and an expected volatility of 16.0 percent based on Duke Energy's historical volatility over three years using daily stock prices.

The following table includes information related to stock-based performance awards.

	Years Ended December 31,		
	2018	**2017**	**2016**
Shares granted assuming target performance (in thousands)	**372**	461	338
Fair value (in millions)	**$ 27**	$ 37	$ 25

The following table summarizes information about stock-based performance awards outstanding and assumes payout at the target level.

	Shares (in thousands)	Weighted Average Grant Date Fair Value (per share)
Outstanding at December 31, 2017	1,065	$ 79
Granted	**372**	**73**
Vested	**(155)**	**81**
Forfeited	**(165)**	**80**
Outstanding at December 31, 2018	**1,117**	**77**
Stock-based performance awards expected to vest	**1,086**	**77**

The total grant date fair value of shares vested during the years ended December 31, 2018, and 2016, was $13 million and $25 million, respectively. No performance awards vested during the year ended December 31, 2017. At December 31, 2018, Duke Energy had $30 million of unrecognized compensation cost, which is expected to be recognized over a weighted average period of 21 months.

PIEDMONT

Prior to Duke Energy's acquisition of Piedmont, Piedmont had an incentive compensation plan that had a series of three-year performance and RSU awards for eligible officers and other participants. The Merger Agreement provided for the conversion of the 2014-2016 and 2015-2017 performance awards and the nonvested 2016 RSU award into the right to receive $60 cash per share upon the close of the transaction. In December 2015, Piedmont's board of directors authorized the accelerated vesting, payment and taxation of the 2014-2016 and 2015-2017 performance awards, as well as the 2016 RSU award, at the election of the participant. Substantially all participants elected to accelerate the settlement of these awards. As a result of the settlement of these awards, 194 thousand shares of Piedmont shares were issued to participants, net of shares withheld for applicable federal and state income taxes, at a closing price of $56.85 and a fair value of $11 million. The 2016-2018 performance award cycle was approved subsequent to the Merger Agreement and was converted into a Duke Energy RSU award at the consummation of the acquisition.

Piedmont's stock-based compensation costs and the tax benefit associated with stock-based compensation expense are included in the following table.

(in millions)	Year Ended October 31, 2016
Pretax stock-based compensation cost	$ 16
Tax benefit associated with stock-based compensation expense	6
Net of tax stock-based compensation cost	$ 10

22. EMPLOYEE BENEFIT PLANS

DEFINED BENEFIT RETIREMENT PLANS

Duke Energy and certain subsidiaries maintain, and the Subsidiary Registrants participate in, qualified, non-contributory defined benefit retirement plans. The Duke Energy plans cover most employees using a cash balance formula. Under a cash balance formula, a plan participant accumulates a retirement benefit consisting of pay credits based upon a percentage of current eligible earnings, age or age and years of service and interest credits. Certain employees are eligible for benefits that use a final average earnings formula. Under these final average earnings formulas, a plan participant accumulates a retirement benefit equal to the sum of percentages of their (i) highest three-year, four-year, or five-year average earnings, (ii) highest three-year, four-year, or five-year average earnings in excess of covered compensation per year of participation (maximum of 35 years) or (iii) highest three-year average earnings times years of participation in excess of 35 years. Duke Energy also maintains, and the Subsidiary Registrants participate in, non-qualified, non-contributory defined benefit retirement plans that cover certain executives. The qualified and non-qualified, non-contributory defined benefit plans are closed to new participants.

Duke Energy approved plan amendments to restructure its qualified non-contributory defined benefit retirement plans, effective January 1, 2018. The restructuring involved (i) the spin-off of the majority of inactive participants from two plans into a separate inactive plan and (ii) the merger of the active participant portions of such plans, along with a pension plan acquired as part of the Piedmont transaction, into a single active plan. Benefits offered to the plan participants remain unchanged except that the Piedmont plan's final average earnings formula was frozen as of December 31, 2017, and affected participants were moved into the active plan's cash balance formula. Actuarial gains and losses associated with the Inactive Plan will be amortized over the remaining life expectancy of the inactive participants. The longer amortization period lowered Duke Energy's 2018 pretax qualified pension plan expense by approximately $33 million.

Duke Energy uses a December 31 measurement date for its defined benefit retirement plan assets and obligations.

Net periodic benefit costs disclosed in the tables below represent the cost of the respective benefit plan for the periods presented prior to capitalization of amounts reflected as Net property, plant and equipment, on the Consolidated Balance Sheets. Only the service cost component of net periodic benefit costs is eligible to be capitalized. The remaining non-capitalized portions of net periodic benefit costs are classified as either: (1) service cost, which is recorded in Operations, maintenance and other on the Consolidated Statements of Operations; or as (2) components of non-service cost, which is recorded in Other income and expenses, net, on the Consolidated Statements of Operations. Amounts presented in the tables below for the Subsidiary Registrants represent the amounts of pension and other post-retirement benefit cost allocated by Duke Energy for employees of the Subsidiary Registrants. Additionally, the Consolidated Statements of Operations of the Subsidiary Registrants also include allocated net periodic benefit costs for their proportionate share of pension and post-retirement benefit cost for employees of Duke Energy's shared services affiliate that provide support to the Subsidiary Registrants. However, in the tables below, these amounts are only presented within the Duke Energy column. These allocated amounts are included in the governance and shared service costs discussed in Note 13.

Duke Energy's policy is to fund amounts on an actuarial basis to provide assets sufficient to meet benefit payments to be paid to plan participants. Duke Energy does not anticipate making any contributions in 2019. The following table includes information related to the Duke Energy Registrants' contributions to its qualified defined benefit pension plans.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont[(a)]
Contributions Made:								
2018	**$ 141**	**$ 46**	**$ 45**	**$ 25**	**$ 20**	**$ —**	**$ 8**	**$ —**
2017	19	—	—	—	—	4	—	11
2016	155	43	43	24	20	5	9	

(a) Piedmont contributed $10 million to its U.S. qualified defined benefit pension plan during the two months ended December 31, 2016, and $10 million for the year ended October 31, 2016.

QUALIFIED PENSION PLANS

Components of Net Periodic Pension Costs

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Service cost	$ 182	$ 58	$ 51	$ 29	$ 22	$ 5	$ 11	$ 7
Interest cost on projected benefit obligation	299	72	94	43	50	17	23	11
Expected return on plan assets	(559)	(147)	(178)	(85)	(91)	(28)	(42)	(22)
Amortization of actuarial loss	132	29	44	21	23	5	10	11
Amortization of prior service credit	(32)	(8)	(3)	(2)	(1)	—	(2)	(10)
Net periodic pension costs[a][b]	$ 22	$ 4	$ 8	$ 6	$ 3	$ (1)	$ —	$ (3)

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Service cost	$ 159	$ 48	$ 45	$ 26	$ 19	$ 4	$ 9	$ 10
Interest cost on projected benefit obligation	328	79	100	47	53	18	26	14
Expected return on plan assets	(545)	(142)	(167)	(82)	(85)	(27)	(42)	(24)
Amortization of actuarial loss	146	31	52	23	29	5	12	11
Amortization of prior service credit	(24)	(8)	(3)	(2)	(1)	(1)	(2)	(2)
Settlement charge	12	—	—	—	—	—	—	12
Other	8	2	2	1	1	—	1	1
Net periodic pension costs[a][b]	$ 84	$ 10	$ 29	$ 13	$ 16	$ (1)	$ 4	$ 22

	Year Ended December 31, 2016						
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Service cost	$ 147	$ 48	$ 42	$ 24	$ 19	$ 4	$ 9
Interest cost on projected benefit obligation	335	86	106	49	55	19	28
Expected return on plan assets	(519)	(142)	(168)	(82)	(84)	(27)	(42)
Amortization of actuarial loss	134	33	51	23	29	4	11
Amortization of prior service credit	(17)	(8)	(3)	(2)	(1)	—	(1)
Settlement charge	3	—	—	—	—	—	—
Other	8	2	3	1	1	1	1
Net periodic pension costs[a][b]	$ 91	$ 19	$ 31	$ 13	$ 19	$ 1	$ 6

(a) Duke Energy amounts exclude $5 million, $7 million and $8 million for the years ended December 2018, 2017 and 2016, respectively, of regulatory asset amortization resulting from purchase accounting adjustments associated with Duke Energy's merger with Cinergy in April 2006.

(b) Duke Energy Ohio amounts exclude $2 million, $3 million and $4 million for the years ended December 2018, 2017 and 2016, respectively, of regulatory asset amortization resulting from purchase accounting adjustments associated with Duke Energy's merger with Cinergy in April 2006.

(in millions)	Piedmont Two Months Ended December 31, 2016	Piedmont Year Ended October 31, 2016
Service cost	$ 2	$ 11
Interest cost on projected benefit obligation	2	9
Expected return on plan assets	(4)	(24)
Amortization of actuarial loss	2	8
Amortization of prior service credit	(1)	(2)
Settlement charge	3	—
Net periodic pension costs	$ 4	$ 2

Amounts Recognized in Accumulated Other Comprehensive Income and Regulatory Assets

(in millions)	Year Ended December 31, 2018 Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Regulatory assets, net increase (decrease)	**$ 298**	**$ 170**	**$ 40**	**$ 31**	**$ 9**	**$ 10**	**$ 30**	**$ 8**
Accumulated other comprehensive loss (income)								
Deferred income tax expense	**$ (2)**	**—**	**1**	**—**	**—**	**—**	**—**	**—**
Amortization of prior year service credit	**1**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Amortization of prior year actuarial losses	**10**	**—**	**(4)**	**—**	**—**	**—**	**—**	**—**
Net amount recognized in accumulated other comprehensive income	**$ 9**	**$ —**	**$ (3)**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**

(in millions)	Year Ended December 31, 2017 Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Regulatory assets, net (decrease) increase	$ (212)	$ (70)	$ (49)	$ (37)	$ (11)	$ 9	$ (19)	$ (64)
Accumulated other comprehensive (income) loss								
Deferred income tax expense	$ —	$ —	$ 3	$ —	$ —	$ —	$ —	$ —
Prior year service credit arising during the year	1	—	—	—	—	—	—	—
Amortization of prior year actuarial losses	(7)	—	(7)	—	—	—	—	—
Net amount recognized in accumulated other comprehensive income	$ (6)	$ —	$ (4)	$ —	$ —	$ —	$ —	$ —

Piedmont's regulatory asset net increase was $34 million and $35 million for the two months ended December 31, 2016, and for the year ended October 31, 2016, respectively.

Reconciliation of Funded Status to Net Amount Recognized

(in millions)	Year Ended December 31, 2018							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Obligation at prior measurement date	$ 8,448	$ 2,029	$ 2,637	$ 1,211	$ 1,410	$ 479	$ 669	$ 313
Service cost	174	56	49	28	21	5	10	7
Interest cost	299	72	94	43	50	17	23	11
Actuarial gain	(485)	(44)	(204)	(87)	(114)	(29)	(29)	(18)
Transfers	—	—	—	—	—	—	—	(16)
Benefits paid	(567)	(159)	(143)	(70)	(72)	(37)	(55)	(33)
Obligation at measurement date	$ 7,869	$ 1,954	$ 2,433	$ 1,125	$ 1,295	$ 435	$ 618	$ 264
Accumulated Benefit Obligation at measurement date	$ 7,818	$ 1,954	$ 2,404	$ 1,125	$ 1,265	$ 425	$ 614	$ 264
Change in Fair Value of Plan Assets								
Plan assets at prior measurement date	$ 9,003	$ 2,372	$ 2,814	$ 1,366	$ 1,429	$ 458	$ 684	$ 368
Employer contributions	141	46	45	25	20	—	8	—
Actual return on plan assets	(344)	(91)	(110)	(53)	(55)	(16)	(26)	(14)
Benefits paid	(567)	(159)	(143)	(70)	(72)	(37)	(55)	(33)
Transfers	—	—	—	—	—	—	—	(16)
Plan assets at measurement date	$ 8,233	$ 2,168	$ 2,606	$ 1,268	$ 1,322	$ 405	$ 611	$ 305
Funded status of plan	$ 364	$ 214	$ 173	$ 143	$ 27	$ (30)	$ (7)	$ 41

(in millions)	Year Ended December 31, 2017							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Obligation at prior measurement date	$ 8,131	$ 1,952	$ 2,512	$ 1,158	$ 1,323	$ 447	$ 658	$ 344
Service cost	159	48	45	26	19	4	9	10
Interest cost	328	79	100	47	53	18	26	14
Actuarial loss	455	68	158	57	99	35	26	38
Transfers	—	27	(32)	(2)	(15)	12	—	—
Plan amendments	(61)	—	—	—	—	—	—	(61)
Benefits paid	(537)	(145)	(146)	(75)	(69)	(37)	(50)	(5)
Benefits paid — settlements	(27)	—	—	—	—	—	—	(27)
Obligation at measurement date	$ 8,448	$ 2,029	$ 2,637	$ 1,211	$ 1,410	$ 479	$ 669	$ 313
Accumulated Benefit Obligation at measurement date	$ 8,369	$ 2,029	$ 2,601	$ 1,211	$ 1,375	$ 468	$ 652	$ 313
Change in Fair Value of Plan Assets								
Plan assets at prior measurement date	$ 8,531	$ 2,225	$ 2,675	$ 1,290	$ 1,352	$ 428	$ 657	$ 346
Employer contributions	19	—	—	—	—	4	—	11
Actual return on plan assets	1,017	265	317	153	161	51	77	43
Benefits paid	(537)	(145)	(146)	(75)	(69)	(37)	(50)	(5)
Benefits paid — settlements	(27)	—	—	—	—	—	—	(27)
Transfers	—	27	(32)	(2)	(15)	12	—	—
Plan assets at measurement date	$ 9,003	$ 2,372	$ 2,814	$ 1,366	$ 1,429	$ 458	$ 684	$ 368
Funded status of plan	$ 555	$ 343	$ 177	$ 155	$ 19	$ (21)	$ 15	$ 55

Amounts Recognized in the Consolidated Balance Sheets

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Prefunded pension[(a)]	$ 433	$ 214	$ 242	$ 143	$ 96	$ 24	$ 39	$ 41
Noncurrent pension liability[(b)]	$ 69	$ —	$ 69	$ —	$ 69	$ 54	$ 46	$ —
Net asset (liability) recognized	$ 364	$ 214	$ 173	$ 143	$ 27	$ (30)	$ (7)	$ 41
Regulatory assets	$ 2,184	$ 576	$ 796	$ 372	$ 424	$ 100	$ 182	$ 81
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (43)	$ —	$ (2)	$ —	$ —	$ —	$ —	$ —
Prior service credit	(4)	—	—	—	—	—	—	—
Net actuarial loss	126	—	5	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive loss	$ 79	$ —	$ 3	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension costs in the next year								
Unrecognized net actuarial loss	$ 97	$ 22	$ 37	$ 13	$ 24	$ 3	$ 5	$ 7
Unrecognized prior service credit	(32)	(8)	(3)	(2)	(1)	—	(2)	(9)

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Prefunded pension[(a)]	$ 680	$ 343	$ 245	$ 155	$ 87	$ 8	$ 16	$ 55
Noncurrent pension liability[(b)]	$ 125	$ —	$ 68	$ —	$ 68	$ 29	$ 1	$ —
Net asset recognized	$ 555	$ 343	$ 177	$ 155	$ 19	$ (21)	$ 15	$ 55
Regulatory assets	$ 1,886	$ 406	$ 756	$ 341	$ 415	$ 90	$ 152	$ 73
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (41)	$ —	$ (3)	$ —	$ —	$ —	$ —	$ —
Prior service credit	(5)	—	—	—	—	—	—	—
Net actuarial loss	116	—	9	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive loss	$ 70	$ —	$ 6	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension costs in the next year								
Unrecognized net actuarial loss	$ 132	$ 29	$ 44	$ 21	$ 23	$ 5	$ 7	$ 11
Unrecognized prior service credit	$ (32)	$ (8)	$ (3)	$ (2)	$ (1)	$ —	$ (2)	$ (9)

(a) Included in Other within Other Noncurrent Assets on the Consolidated Balance Sheets.
(b) Included in Accrued pension and other post-retirement benefit costs on the Consolidated Balance Sheets.

Information for Plans with Accumulated Benefit Obligation in Excess of Plan Assets

	December 31, 2018				
(in millions)	Duke Energy	Progress Energy	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Projected benefit obligation	$ 679	$ 679	$ 679	$ 123	$ 203
Accumulated benefit obligation	651	651	651	115	199
Fair value of plan assets	610	610	610	69	159

	December 31, 2017			
(in millions)	Duke Energy	Progress Energy	Duke Energy Florida	Duke Energy Ohio
Projected benefit obligation	$ 1,386	$ 718	$ 718	$ 337
Accumulated benefit obligation	1,326	683	683	326
Fair value of plan assets	1,260	650	650	308

Assumptions Used for Pension Benefits Accounting

The discount rate used to determine the current year pension obligation and following year's pension expense is based on a bond selection-settlement portfolio approach. This approach develops a discount rate by selecting a portfolio of high quality corporate bonds that generate sufficient cash flow to provide for projected benefit payments of the plan. The selected bond portfolio is derived from a universe of non-callable corporate bonds rated Aa quality or higher. After the bond portfolio is selected, a single interest rate is determined that equates the present value of the plan's projected benefit payments discounted at this rate with the market value of the bonds selected.

The average remaining service period for participants in active plans and life expectancy of participants in inactive plans is 13 years for Duke Energy and Duke Energy Progress, 12 years for Duke Energy Carolinas, Progress Energy, and Duke Energy Florida, 14 years for Duke Energy Ohio and Duke Energy Indiana, and 10 years for Piedmont.

The following tables present the assumptions or range of assumptions used for pension benefit accounting.

	December 31,		
	2018	2017	2016
Benefit Obligations			
Discount rate	**4.30%**	3.60%	4.10%
Salary increase	**3.50% – 4.00%**	3.50% – 4.00%	4.00% – 4.50%
Net Periodic Benefit Cost			
Discount rate	**3.60%**	4.10%	4.40%
Salary increase	**3.50% – 4.00%**	4.00% – 4.50%	4.00% – 4.40%
Expected long-term rate of return on plan assets	**6.50%**	6.50% – 6.75%	6.50% – 6.75%

	Piedmont	
	Two Months Ended	Year Ended
	December 31, 2016	October 31, 2016
Benefit Obligations		
Discount rate	4.10%	3.80%
Salary increase	4.50%	4.05%
Net Periodic Benefit Cost		
Discount rate	3.80%	4.34%
Salary increase	4.05%	4.07%
Expected long-term rate of return on plan assets	6.75%	7.25%

Expected Benefit Payments

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Years ending December 31,								
2019	$ 662	$ 210	$ 179	$ 105	$ 73	$ 33	$ 47	$ 20
2020	651	177	171	90	80	37	51	24
2021	663	182	177	95	81	37	51	23
2022	662	189	179	94	84	37	49	22
2023	655	185	181	95	85	35	47	22
2024-2028	2,993	794	902	451	447	158	217	96

NON-QUALIFIED PENSION PLANS

Components of Net Periodic Pension Costs

	Year Ended December 31, 2018				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Service cost	**$ 2**	**$ 1**	**$ —**	**$ —**	**$ —**
Interest cost on projected benefit obligation	**12**	**—**	**4**	**1**	**2**
Amortization of actuarial loss	**8**	**—**	**2**	**1**	**1**
Amortization of prior service credit	**(2)**	**—**	**—**	**—**	**—**
Net periodic pension costs	**$ 20**	**$ 1**	**$ 6**	**$ 2**	**$ 3**

	Year Ended December 31, 2017				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Service cost	$ 2	$ 1	$ —	$ —	$ —
Interest cost on projected benefit obligation	13	1	5	1	2
Amortization of actuarial loss	8	—	2	1	1
Amortization of prior service credit	(2)	—	—	—	—
Net periodic pension costs	$ 21	$ 2	$ 7	$ 2	$ 3

	Year Ended December 31, 2016				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Service cost	$ 2	$ —	$ —	$ —	$ —
Interest cost on projected benefit obligation	14	1	5	1	2
Amortization of actuarial loss	8	1	1	1	1
Amortization of prior service credit	(1)	—	—	—	—
Net periodic pension costs	$ 23	$ 2	$ 6	$ 2	$ 3

	Piedmont
	Year Ended
(in millions)	October 31, 2016
Amortization of prior service cost	$ —
Settlement charge	1
Net periodic pension costs	$ 1

Amounts Recognized in Accumulated Other Comprehensive Income and Regulatory Assets and Liabilities

	Year Ended December 31, 2018				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Regulatory assets, net (decrease) increase	$ (16)	$ 1	$ (6)	$ (3)	$ (3)
Accumulated other comprehensive (income) loss					
Deferred income tax benefit	$ 1	$ —	$ 1	$ —	$ —
Actuarial gain arising during the year	(4)	—	(3)	—	—
Net amount recognized in accumulated other comprehensive loss (income)	$ (3)	$ —	$ (2)	$ —	$ —

	Year Ended December 31, 2017				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Regulatory assets, net increase (decrease)	$ 5	$ (1)	$ 3	$ 1	$ 2
Accumulated other comprehensive (income) loss					
Prior service credit arising during the year	$ (1)	$ —	$ —	$ —	$ —
Actuarial loss arising during the year	2	—	—	—	—
Net amount recognized in accumulated other comprehensive loss (income)	$ 1	$ —	$ —	$ —	$ —

Reconciliation of Funded Status to Net Amount Recognized

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Obligation at prior measurement date	$ 331	$ 14	$ 116	$ 35	$ 47	$ 4	$ 3	$ 4
Service cost	2	1	—	—	—	—	—	—
Interest cost	12	—	4	1	2	—	—	—
Actuarial gain	(17)	—	(6)	(2)	(3)	(1)	—	(1)
Benefits paid	(24)	(1)	(8)	(3)	(3)	—	—	—
Obligation at measurement date	$ 304	$ 14	$ 106	$ 31	$ 43	$ 3	$ 3	$ 3
Accumulated Benefit Obligation at measurement date	$ 304	$ 14	$ 106	$ 31	$ 43	$ 3	$ 3	$ 3
Change in Fair Value of Plan Assets								
Benefits paid	$ (24)	$ (1)	$ (8)	$ (3)	$ (3)	$ —	$ —	$ —
Employer contributions	24	1	8	3	3	—	—	—
Plan assets at measurement date	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —

(in millions)	Year Ended December 31, 2017							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Obligation at prior measurement date	$ 332	$ 14	$ 114	$ 33	$ 46	$ 4	$ 3	$ 4
Service cost	2	1	—	—	—	—	—	—
Interest cost	13	1	5	1	2	—	—	—
Actuarial loss (gain)	15	—	5	4	2	—	—	—
Benefits paid	(31)	(2)	(8)	(3)	(3)	—	—	—
Obligation at measurement date	$ 331	$ 14	$ 116	$ 35	$ 47	$ 4	$ 3	$ 4
Accumulated Benefit Obligation at measurement date	$ 331	$ 14	$ 116	$ 35	$ 47	$ 4	$ 3	$ 4
Change in Fair Value of Plan Assets								
Benefits paid	$ (31)	$ (2)	$ (8)	$ (3)	$ (3)	$ —	$ —	$ —
Employer contributions	31	2	8	3	3	—	—	—
Plan assets at measurement date	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —

Amounts Recognized in the Consolidated Balance Sheets

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current pension liability[a]	$ 21	$ 2	$ 8	$ 3	$ 3	$ —	$ —	$ —
Noncurrent pension liability[b]	283	12	98	28	40	3	3	3
Total accrued pension liability	$ 304	$ 14	$ 106	$ 31	$ 43	$ 3	$ 3	$ 3
Regulatory assets	$ 62	$ 5	$ 15	$ 5	$ 10	$ 1	$ —	$ 1
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (3)	$ —	$ (2)	$ —	$ —	$ —	$ —	$ —
Prior service credit	(1)	—	—	—	—	—	—	—
Net actuarial loss	8	—	6	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive loss	$ 4	$ —	$ 4	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension expense in the next year								
Unrecognized net actuarial loss	$ 6	$ —	$ 2	$ 1	$ 1	$ —	$ —	$ —
Unrecognized prior service credit	(2)	—	—	—	—	—	—	—

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current pension liability[a]	$ 23	$ 2	$ 8	$ 3	$ 3	$ —	$ —	$ —
Noncurrent pension liability[b]	308	12	108	32	44	4	3	4
Total accrued pension liability	$ 331	$ 14	$ 116	$ 35	$ 47	$ 4	$ 3	$ 4
Regulatory assets	$ 78	$ 4	$ 21	$ 8	$ 13	$ 1	$ —	$ 1
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (4)	$ —	$ (3)	$ —	$ —	$ —	$ —	$ —
Prior service credit	(1)	—	—	—	—	—	—	—
Net actuarial loss	12	—	9	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive loss	$ 7	$ —	$ 6	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension expense in the next year								
Unrecognized net actuarial loss	$ 8	$ —	$ 2	$ 1	$ 1	$ —	$ —	$ —
Unrecognized prior service credit	$ (2)	$ —	$ —	$ —	$ —	$ —	$ —	$ —

(a) Included in Other within Current Liabilities on the Consolidated Balance Sheets.
(b) Included in Accrued pension and other post-retirement benefit costs on the Consolidated Balance Sheets.

Information for Plans with Accumulated Benefit Obligation in Excess of Plan Assets

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Projected benefit obligation	$ 304	$ 14	$ 106	$ 31	$ 43	$ 3	$ 3	$ 3
Accumulated benefit obligation	304	14	106	31	43	3	3	3

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Projected benefit obligation	$ 331	$ 14	$ 116	$ 35	$ 47	$ 4	$ 3	$ 4
Accumulated benefit obligation	331	14	116	35	47	4	3	4

Assumptions Used for Pension Benefits Accounting

The discount rate used to determine the current year pension obligation and following year's pension expense is based on a bond selection-settlement portfolio approach. This approach develops a discount rate by selecting a portfolio of high quality corporate bonds that generate sufficient cash flow to provide for projected benefit payments of the plan. The selected bond portfolio is derived from a universe of non-callable corporate bonds rated Aa quality or higher. After the bond portfolio is selected, a single interest rate is determined that equates the present value of the plan's projected benefit payments discounted at this rate with the market value of the bonds selected.

The average remaining service period of active covered employees is 10 years for Duke Energy, 13 years for Progress Energy, 11 years for Duke Energy Progress, 15 years for Duke Energy Florida, eight years for Duke Energy Carolinas, Duke Energy Ohio, Duke Energy Indiana and Piedmont. The following tables present the assumptions used for pension benefit accounting.

	December 31,		
	2018	2017	2016
Benefit Obligations			
Discount rate	**4.30%**	3.60%	4.10%
Salary increase	**3.50% – 4.00%**	3.50% – 4.00%	4.40%
Net Periodic Benefit Cost			
Discount rate	**3.60%**	4.10%	4.40%
Salary increase	**3.50% – 4.00%**	4.40%	4.40%

	Piedmont	
	Two Months Ended	Year Ended
	December 31, 2016	October 31, 2016
Benefit Obligations		
Discount rate	4.10%	3.80%
Net Periodic Benefit Cost		
Discount rate	3.80%	3.85%

Expected Benefit Payments

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Years ending December 31,								
2019	$ 22	$ 2	$ 8	$ 3	$ 3	$ —	$ —	$ —
2020	21	1	8	2	3	—	—	—
2021	23	1	8	2	3	—	—	—
2022	25	1	8	2	3	—	—	—
2023	25	3	7	2	3	—	—	—
2024-2028	125	10	37	11	15	1	1	2

OTHER POST-RETIREMENT BENEFIT PLANS

Duke Energy provides, and the Subsidiary Registrants participate in, some health care and life insurance benefits for retired employees on a contributory and non-contributory basis. Employees are eligible for these benefits if they have met age and service requirements at retirement, as defined in the plans. The health care benefits include medical, dental and prescription drug coverage and are subject to certain limitations, such as deductibles and copayments.

Duke Energy did not make any pre-funding contributions to its other post-retirement benefit plans during the years ended December 31, 2018, 2017 or 2016.

Components of Net Periodic Other Post-Retirement Benefit Costs

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Service cost	$ 6	$ 1	$ 1	$ —	$ 1	$ 1	$ 1	$ 1
Interest cost on accumulated post-retirement benefit obligation	28	7	12	6	6	1	3	1
Expected return on plan assets	(13)	(8)	—	—	—	—	—	(2)
Amortization of actuarial loss	6	3	1	1	—	—	4	—
Amortization of prior service credit	(19)	(5)	(8)	(1)	(7)	(1)	(1)	(2)
Net periodic post-retirement benefit costs [a][b]	$ 8	$ (2)	$ 6	$ 6	$ —	$ 1	$ 7	$ (2)

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Service cost	$ 4	$ 1	$ —	$ —	$ —	$ —	$ —	$ 1
Interest cost on accumulated post-retirement benefit obligation	34	8	13	7	6	1	3	1
Expected return on plan assets	(14)	(8)	—	—	—	—	(1)	(2)
Amortization of actuarial loss (gain)	10	(2)	21	12	9	(2)	(1)	1
Amortization of prior service credit	(115)	(10)	(84)	(54)	(30)	—	(1)	—
Curtailment credit [c]	(30)	(4)	(16)	—	(16)	(2)	(2)	—
Net periodic post-retirement benefit costs[a][b]	$ (111)	$ (15)	$ (66)	$ (35)	$ (31)	$ (3)	$ (2)	$ 1

	Year Ended December 31, 2016						
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Service cost	$ 3	$ 1	$ 1	$ —	$ 1	$ —	$ —
Interest cost on accumulated post-retirement benefit obligation	35	8	15	8	7	1	4
Expected return on plan assets	(12)	(8)	—	—	—	—	(1)
Amortization of actuarial loss (gain)	6	(3)	22	13	9	(2)	(1)
Amortization of prior service credit	(141)	(14)	(103)	(68)	(35)	—	(1)
Net periodic post-retirement benefit costs[a][b]	$ (109)	$ (16)	$ (65)	$ (47)	$ (18)	$ (1)	$ 1

(a) Duke Energy amounts exclude $7 million, $7 million and $8 million for the years ended December 2018, 2017 and 2016, respectively, of regulatory asset amortization resulting from purchase accounting adjustments associated with Duke Energy's merger with Cinergy in April 2006.

(b) Duke Energy Ohio amounts exclude $2 million, $2 million and $2 million for the years ended December 2018, 2017 and 2016, respectively, of regulatory asset amortization resulting from purchase accounting adjustments associated with Duke Energy's merger with Cinergy in April 2006.

(c) Curtailment credit resulted from a reduction in average future service of plan participants due to a plan amendment.

(in millions)	Piedmont Year Ended October 31, 2016
Service cost	$ 1
Interest cost on projected benefit obligation	1
Expected return on plan assets	(2)
Amortization of actuarial loss	1
Net periodic pension costs	$ 1

Amounts Recognized in Accumulated Other Comprehensive Income and Regulatory Assets and Liabilities

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Regulatory assets, net increase (decrease)	$ 137	$ —	$ 133	$ 84	$ 49	$ —	$ (5)	$ 4
Regulatory liabilities, net increase (decrease)	$ 154	$ (6)	$ 149	$ 93	$ 56	$ 2	$ 3	$ —
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (1)	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Amortization of prior year actuarial gain	1	—	—	—	—	—	—	—
Net amount recognized in accumulated other comprehensive income	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Regulatory assets, net increase (decrease)	$ 71	$ —	$ 81	$ 42	$ 39	$ —	$ (5)	$ (11)
Regulatory liabilities, net increase (decrease)	$ (27)	$ (2)	$ —	$ —	$ —	$ (3)	$ (7)	$ —
Accumulated other comprehensive (income) loss								
Deferred income tax benefit	$ (1)	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Amortization of prior year prior service credit	3	—	—	—	—	—	—	—
Net amount recognized in accumulated other comprehensive income	$ 2	$ —	$ —	$ —	$ —	$ —	$ —	$ —

Piedmont's regulatory assets net decreased $1 million for the two months ended December 31, 2016, and increased $2 million for the year ended October 31, 2016.

Reconciliation of Funded Status to Accrued Other Post-Retirement Benefit Costs

(in millions)	Year Ended December 31, 2018							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Accumulated post-retirement benefit obligation at prior measurement date	$ 813	$ 189	$ 342	$ 184	$ 156	$ 30	$ 78	$ 32
Service cost	6	1	1	—	1	1	1	1
Interest cost	28	7	12	6	6	1	3	1
Plan participants' contributions	18	3	6	4	3	1	2	—
Actuarial gains	(51)	(8)	(23)	(9)	(13)	(2)	(5)	(1)
Transfers	—	—	—	—	—	—	—	(1)
Benefits paid	(86)	(18)	(35)	(19)	(16)	(2)	(12)	(2)
Accumulated post-retirement benefit obligation at measurement date	$ 728	$ 174	$ 303	$ 166	$ 137	$ 29	$ 67	$ 30
Change in Fair Value of Plan Assets								
Plan assets at prior measurement date	$ 225	$ 133	$ —	$ —	$ —	$ 7	$ 11	$ 31
Actual return on plan assets	(8)	(5)	—	—	—	—	—	(1)
Benefits paid	(86)	(18)	(35)	(19)	(16)	(2)	(12)	(2)
Employer contributions	46	2	29	15	13	2	4	1
Plan participants' contributions	18	3	6	4	3	1	2	—
Plan assets at measurement date	$ 195	$ 115	$ —	$ —	$ —	$ 8	$ 5	$ 29
Funded status of plan	$ (533)	$ (59)	$ (303)	$ (166)	$ (137)	$ (21)	$ (62)	$ (1)

(in millions)	Year Ended December 31, 2017							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Change in Projected Benefit Obligation								
Accumulated post-retirement benefit obligation at prior measurement date	$ 868	$ 201	$ 357	$ 191	$ 164	$ 32	$ 83	$ 39
Service cost	4	1	—	—	—	—	—	1
Interest cost	34	8	13	7	6	1	3	1
Plan participants' contributions	17	3	6	3	3	1	2	—
Actuarial losses (gains)	4	(3)	4	1	3	—	3	1
Transfers	—	2	(1)	—	(1)	1	—	—
Plan amendments	(28)	(5)	(3)	(1)	(2)	(2)	(2)	(9)
Benefits paid	(86)	(18)	(34)	(17)	(17)	(3)	(11)	(1)
Accumulated post-retirement benefit obligation at measurement date	$ 813	$ 189	$ 342	$ 184	$ 156	$ 30	$ 78	$ 32
Change in Fair Value of Plan Assets								
Plan assets at prior measurement date	$ 244	$ 137	$ 1	$ —	$ —	$ 7	$ 22	$ 29
Actual return on plan assets	25	15	1	—	—	2	1	3
Benefits paid	(86)	(18)	(34)	(17)	(17)	(3)	(11)	(1)
Employer contributions (reimbursements)	25	(4)	26	14	14	—	(3)	—
Plan participants' contributions	17	3	6	3	3	1	2	—
Plan assets at measurement date	$ 225	$ 133	$ —	$ —	$ —	$ 7	$ 11	$ 31
Funded status of plan	$ (588)	$ (56)	$ (342)	$ (184)	$ (156)	$ (23)	$ (67)	$ (1)

Amounts Recognized in the Consolidated Balance Sheets

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current post-retirement liability[(a)]	$ 8	$ —	$ 5	$ 3	$ 2	$ 2	$ —	$ —
Noncurrent post-retirement liability[(b)]	525	59	298	163	135	19	62	1
Total accrued post-retirement liability	$ 533	$ 59	$ 303	$ 166	$ 137	$ 21	$ 62	$ 1
Regulatory assets	$ 262	$ —	$ 262	$ 164	$ 98	$ —	$ 41	$ —
Regulatory liabilities	$ 301	$ 38	$ 149	$ 93	$ 56	$ 18	$ 67	$ —
Accumulated other comprehensive (income) loss								
Deferred income tax expense	$ 3	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Prior service credit	(2)	—	—	—	—	—	—	—
Net actuarial gain	(9)	—	—	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive income	$ (8)	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension expense in the next year								
Unrecognized net actuarial loss	$ 4	$ 2	$ 1	$ —	$ —	$ —	$ —	$ —
Unrecognized prior service credit	(19)	(5)	(7)	(1)	(6)	(1)	(1)	(2)

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current post-retirement liability[(a)]	$ 36	$ —	$ 29	$ 15	$ 14	$ 2	$ —	$ —
Noncurrent post-retirement liability[(b)]	552	56	313	169	142	21	67	1
Total accrued post-retirement liability	$ 588	$ 56	$ 342	$ 184	$ 156	$ 23	$ 67	$ 1
Regulatory assets	$ 125	$ —	$ 129	$ 80	$ 49	$ —	$ 46	$ (4)
Regulatory liabilities	$ 147	$ 44	$ —	$ —	$ —	$ 16	$ 64	$ —
Accumulated other comprehensive (income) loss								
Deferred income tax expense	$ 4	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Prior service credit	(2)	—	—	—	—	—	—	—
Net actuarial gain	(10)	—	—	—	—	—	—	—
Net amounts recognized in accumulated other comprehensive income	$ (8)	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Amounts to be recognized in net periodic pension expense in the next year								
Unrecognized net actuarial loss (gain)	$ 5	$ 3	$ 1	$ —	$ 1	$ —	$ —	$ —
Unrecognized prior service credit	(19)	(5)	(7)	(1)	(6)	(1)	(1)	(2)

(a) Included in Other within Current Liabilities on the Consolidated Balance Sheets.
(b) Included in Accrued pension and other post-retirement benefit costs on the Consolidated Balance Sheets.

Assumptions Used for Other Post-Retirement Benefits Accounting

The discount rate used to determine the current year other post-retirement benefits obligation and following year's other post-retirement benefits expense is based on a bond selection-settlement portfolio approach. This approach develops a discount rate by selecting a portfolio of high quality corporate bonds that generate sufficient cash flow to provide for projected benefit payments of the plan. The selected bond portfolio is derived from a universe of non-callable corporate bonds rated Aa quality or higher. After the bond portfolio is selected, a single interest rate is determined that equates the present value of the plan's projected benefit payments discounted at this rate with the market value of the bonds selected. The average remaining service period of active covered employees is nine years for Duke Energy, eight years for Duke Energy Carolinas, seven years for Duke Energy Florida, Duke Energy Ohio, and Piedmont, and six years for Progress Energy, Duke Energy Progress, and Duke Energy Indiana.

The following tables present the assumptions used for other post-retirement benefits accounting.

	December 31,		
	2018	2017	2016
Benefit Obligations			
Discount rate	**4.30%**	3.60%	4.10%
Net Periodic Benefit Cost			
Discount rate	**3.60%**	4.10%	4.40%
Expected long-term rate of return on plan assets	**6.50%**	6.50%	6.50%
Assumed tax rate	**35%**	35%	35%

	Piedmont	
	Two Months Ended	Year Ended
	December 31, 2016	October 31, 2016
Benefit Obligations		
Discount rate	4.10%	3.80%
Net Periodic Benefit Cost		
Discount rate	3.80%	4.38%
Expected long-term rate of return on plan assets	6.75%	7.25%

Assumed Health Care Cost Trend Rate

	December 31,	
	2018	2017
Health care cost trend rate assumed for next year	**6.50%**	7.00%
Rate to which the cost trend is assumed to decline (the ultimate trend rate)	**4.75%**	4.75%
Year that rate reaches ultimate trend	**2024**	2024

Sensitivity to Changes in Assumed Health Care Cost Trend Rates

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
1-Percentage Point Increase								
Effect on total service and interest costs	$ 1	$ —	$ 1	$ 1	$ —	$ —	$ —	$ —
Effect on post-retirement benefit obligation	**22**	**5**	**9**	**5**	**4**	**1**	**2**	**1**
1-Percentage Point Decrease								
Effect on total service and interest costs	**(1)**	**—**	**(1)**	**(1)**	**—**	**—**	**—**	**—**
Effect on post-retirement benefit obligation	**(20)**	**(5)**	**(8)**	**(5)**	**(4)**	**(1)**	**(2)**	**(1)**

Expected Benefit Payments

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Years ending December 31,								
2019	$ 81	$ 19	$ 30	$ 16	$ 14	$ 3	$ 9	$ 2
2020	75	18	29	15	13	3	8	2
2021	71	18	28	15	13	3	7	2
2022	68	17	27	14	12	3	7	3
2023	64	16	26	14	12	3	6	3
2024-2028	266	64	109	59	50	11	26	12

PLAN ASSETS

Description and Allocations

Duke Energy Master Retirement Trust

Assets for both the qualified pension and other post-retirement benefits are maintained in the Duke Energy Master Retirement Trust. Qualified pension and other post-retirement assets related to Piedmont were transferred into the Duke Energy Master Retirement Trust during 2017. Approximately 98 percent of the Duke Energy Master Retirement Trust assets were allocated to qualified pension plans and approximately 2 percent were allocated to other post-retirement plans (comprised of 401(h) accounts), as of December 31, 2018, and 2017. The investment objective of the Duke Energy Master Retirement Trust is to invest in a diverse portfolio of assets that is expected to generate positive surplus return over time (i.e. asset growth greater than liability growth) subject to a prudent level of portfolio risk, for the purpose of enhancing the security of benefits for plan participants.

As of December 31, 2018, Duke Energy assumes pension and other post-retirement plan assets will generate a long-term rate of return of 6.85 percent. The expected long-term rate of return was developed using a weighted average calculation of expected returns based primarily on future expected returns across asset classes considering the use of active asset managers, where applicable. The asset allocation targets were set after considering the investment objective and the risk profile. Equity securities are held for their higher expected returns. Debt securities are primarily held to hedge the qualified pension plan liability. Real assets, return seeking fixed income, hedge funds and other global securities are held for diversification. Investments within asset classes are diversified to achieve broad market participation and reduce the impact of individual managers or investments.

Effective January 1, 2019, the target asset allocation for the Duke Energy Retirement Master Trust is 58 percent liability hedging assets and 42 percent return-seeking assets. Duke Energy periodically reviews its asset allocation targets, and over time, as the funded status of the benefit plans increase, the level of asset risk relative to plan liabilities may be reduced to better manage Duke Energy's benefit plan liabilities and reduce funded status volatility.

The Duke Energy Master Retirement Trust is authorized to engage in the lending of certain plan assets. Securities lending is an investment management enhancement that utilizes certain existing securities of the Duke Energy Master Retirement Trust to earn additional income. Securities lending involves the loaning of securities to approved parties. In return for the loaned securities, the Duke Energy Master Retirement Trust receives collateral in the form of cash and securities as a safeguard against possible default of any borrower on the return of the loan under terms that permit the Duke Energy Master Retirement Trust to sell the securities. The Duke Energy Master Retirement Trust mitigates credit risk associated with securities lending arrangements by monitoring the fair value of the securities loaned, with additional collateral obtained or refunded as necessary. The fair value of securities on loan was approximately $154 million and $195 million at December 31, 2018, and 2017, respectively. Cash and securities obtained as collateral exceeded the fair value of the securities loaned at December 31, 2018, and 2017, respectively. Securities lending income earned by the Duke Energy Master Retirement Trust was immaterial for the years ended December 31, 2018, 2017 and 2016, respectively.

Qualified pension and other post-retirement benefits for the Subsidiary Registrants are derived from the Duke Energy Master Retirement Trust, as such, each are allocated their proportionate share of the assets discussed below.

The following table includes the target asset allocations by asset class at December 31, 2018, and the actual asset allocations for the Duke Energy Master Retirement Trust.

	Target Allocation	Actual Allocation at December 31, 2018	Actual Allocation at December 31, 2017
U.S. equity securities	10%	**11%**	11%
Non-U.S. equity securities	8%	**8%**	8%
Global equity securities	10%	**10%**	10%
Global private equity securities	3%	**2%**	2%
Debt securities	63%	**63%**	63%
Hedge funds	2%	**2%**	2%
Real estate and cash	2%	**2%**	2%
Other global securities	2%	**2%**	2%
Total	100%	**100%**	100%

Other post-retirement assets

Duke Energy's other post-retirement assets are comprised of VEBA trusts and 401(h) accounts held within the Duke Energy Master Retirement Trust. Duke Energy's investment objective is to achieve sufficient returns, subject to a prudent level of portfolio risk, for the purpose of promoting the security of plan benefits for participants.

The following table presents target and actual asset allocations for the VEBA trusts at December 31, 2018.

	Target Allocation	Actual Allocation at December 31, 2018	Actual Allocation at December 31, 2017
U.S. equity securities	32%	**43%**	41%
Non-U.S. equity securities	6%	**8%**	8%
Real estate	2%	**2%**	2%
Debt securities	45%	**40%**	36%
Cash	15%	**7%**	13%
Total	100%	**100%**	100%

Fair Value Measurements

Duke Energy classifies recurring and non-recurring fair value measurements based on the fair value hierarchy as discussed in Note 16.

Valuation methods of the primary fair value measurements disclosed below are as follows:

Investments in equity securities

Investments in equity securities are typically valued at the closing price in the principal active market as of the last business day of the reporting period. Principal active markets for equity prices include published exchanges such as NASDAQ and NYSE. Foreign equity prices are translated from their trading currency using the currency exchange rate in effect at the close of the principal active market. Prices have not been adjusted to reflect after-hours market activity. The majority of investments in equity securities are valued using Level 1 measurements. When the price of an institutional commingled fund is unpublished, it is not categorized in the fair value hierarchy, even though the funds are readily available at the fair value.

Investments in corporate debt securities and U.S. government securities

Most debt investments are valued based on a calculation using interest rate curves and credit spreads applied to the terms of the debt instrument (maturity and coupon interest rate) and consider the counterparty credit rating. Most debt valuations are Level 2 measurements. If the market for a particular fixed-income security is relatively inactive or illiquid, the measurement is Level 3. U.S. Treasury debt is typically Level 2.

Investments in short-term investment funds

Investments in short-term investment funds are valued at the net asset value of units held at year end and are readily redeemable at the measurement date. Investments in short-term investment funds with published prices are valued as Level 1. Investments in short-term investment funds with unpublished prices are valued as Level 2.

Investments in real estate limited partnerships

Investments in real estate limited partnerships are valued by the trustee at each valuation date (monthly). As part of the trustee's valuation process, properties are externally appraised generally on an annual basis, conducted by reputable, independent appraisal firms, and signed by appraisers that are members of the Appraisal Institute, with the professional designation MAI. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. There are three valuation techniques that can be used to value investments in real estate assets: the market, income or cost approach. The appropriateness of each valuation technique depends on the type of asset or business being valued. In addition, the trustee may cause additional appraisals to be performed as warranted by specific asset or market conditions. Property valuations and the salient valuation-sensitive assumptions of each direct investment property are reviewed by the trustee quarterly and values are adjusted if there has been a significant change in circumstances related to the investment property since the last valuation. Value adjustments for interim capital expenditures are only recognized to the extent that the valuation process acknowledges a corresponding increase in fair value. An independent firm is hired to review and approve quarterly direct real estate valuations. Key inputs and assumptions used to determine fair value includes among others, rental revenue and expense amounts and related revenue and expense growth rates, terminal capitalization rates and discount rates. Development investments are valued using cost incurred to date as a primary input until substantive progress is achieved in terms of mitigating construction and leasing risk at which point a discounted cash flow approach is more heavily weighted. Key inputs and assumptions in addition to those noted above used to determine the fair value of development investments include construction costs and the status of construction completion and leasing. Investments in real estate limited partnerships are valued at net asset value of units held at year end and are not readily redeemable at the measurement date. Investments in real estate limited partnerships are not categorized within the fair value hierarchy.

Duke Energy Master Retirement Trust

The following tables provide the fair value measurement amounts for the Duke Energy Master Retirement Trust qualified pension and other post-retirement assets.

	December 31, 2018				
(in millions)	**Total Fair Value**	**Level 1**	**Level 2**	**Level 3**	**Not Categorized[(b)]**
Equity securities	**$ 2,373**	**$ 1,751**	**$ —**	**$ —**	**$ 622**
Corporate debt securities	**4,054**	**—**	**4,054**	**—**	**—**
Short-term investment funds	**363**	**279**	**84**	**—**	**—**
Partnership interests	**120**	**—**	**—**	**—**	**120**
Hedge funds	**226**	**—**	**—**	**—**	**226**
Real estate limited partnerships	**144**	**—**	**—**	**—**	**144**
U.S. government securities	**961**	**—**	**961**	**—**	**—**
Guaranteed investment contracts	**27**	**—**	**—**	**27**	**—**
Governments bonds – foreign	**30**	**—**	**30**	**—**	**—**
Cash	**28**	**28**	**—**	**—**	**—**
Net pending transactions and other investments	**(2)**	**(6)**	**4**	**—**	**—**
Total assets[(a)]	**$ 8,324**	**$ 2,052**	**$ 5,133**	**$ 27**	**$ 1,112**

(a) Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana, and Piedmont were allocated approximately 27 percent, 31 percent, 15 percent, 16 percent, 5 percent, 7 percent, and 4 percent, respectively, of the Duke Energy Master Retirement Trust at December 31, 2018. Accordingly, all amounts included in the table above are allocable to the Subsidiary Registrants using these percentages.

(b) Certain investments that are measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy.

	December 31, 2017				
(in millions)	Total Fair Value	Level 1	Level 2	Level 3	Not Categorized[b]
Equity securities	$ 2,823	$ 1,976	$ —	$ —	$ 847
Corporate debt securities	4,694	—	4,694	—	—
Short-term investment funds	246	192	54	—	—
Partnership interests	137	—	—	—	137
Hedge funds	226	—	—	—	226
Real estate limited partnerships	135	—	—	—	135
U.S. government securities	762	—	762	—	—
Guaranteed investment contracts	28	—	—	28	—
Governments bonds – foreign	38	—	38	—	—
Cash	6	6	—	—	—
Government and commercial mortgage backed securities	2	—	2	—	—
Net pending transactions and other investments	17	15	2	—	—
Total assets[a]	$ 9,114	$ 2,189	$ 5,552	$ 28	$ 1,345

(a) Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana, and Piedmont were allocated approximately 27 percent, 30 percent, 15 percent, 15 percent, 5 percent, 8 percent, and 4 percent, respectively, of the Duke Energy Master Retirement Trust and Piedmont's Pension assets at December 31, 2017. Accordingly, all amounts included in the table above are allocable to the Subsidiary Registrants using these percentages.

(b) Certain investments that are measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy.

The following table provides a reconciliation of beginning and ending balances of Duke Energy Master Retirement Trust qualified pension and other post-retirement assets at fair value on a recurring basis where the determination of fair value includes significant unobservable inputs (Level 3).

(in millions)	2018	2017[a]
Balance at January 1	**$ 28**	$ 38
Sales	**(1)**	(2)
Total gains and other, net	**—**	1
Transfer of Level 3 assets to other classifications	**—**	(9)
Balance at December 31	**$ 27**	$ 28

(a) Balance at January 1 includes $9 million associated with Piedmont pension assets.

Other post-retirement assets

The following tables provide the fair value measurement amounts for VEBA trust assets.

	December 31, 2018	
(in millions)	Total Fair Value	Level 2
Cash and cash equivalents	**$ 3**	**$ 3**
Real estate	**1**	**1**
Equity securities	**25**	**25**
Debt securities	**20**	**20**
Total assets	**$ 49**	**$ 49**

	December 31, 2017	
(in millions)	Total Fair Value	Level 2
Cash and cash equivalents	$ 8	**$ 8**
Real estate	1	**1**
Equity securities	28	**28**
Debt securities	21	**21**
Total assets	$ 58	$ 58

EMPLOYEE SAVINGS PLANS

Retirement Savings Plan

Duke Energy or its affiliates sponsor, and the Subsidiary Registrants participate in, employee savings plans that cover substantially all U.S. employees. Most employees participate in a matching contribution formula where Duke Energy provides a matching contribution generally equal to 100 percent of employee before-tax and Roth 401(k) contributions of up to 6 percent of eligible pay per pay period. Dividends on Duke Energy shares held by the savings plans are charged to retained earnings when declared and shares held in the plans are considered outstanding in the calculation of basic and diluted EPS.

For new and rehired employees who are not eligible to participate in Duke Energy's defined benefit plans, an additional employer contribution of 4 percent of eligible pay per pay period, which is subject to a three-year vesting schedule, is provided to the employee's savings plan account. Certain Piedmont employees whose participation in a prior Piedmont defined benefit plan (that was frozen as of December 31, 2017) are eligible for employer transition credit contributions of 3 to 5 percent of eligible pay per period, for each pay period during the three-year period ending December 31, 2020.

The following table includes pretax employer matching contributions made by Duke Energy and expensed by the Subsidiary Registrants.

(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont[(a)]
Years ended December 31,								
2018	**$ 213**	**$ 68**	**$ 58**	**$ 40**	**$ 19**	**$ 4**	**$ 10**	**$ 12**
2017	179	61	53	37	16	3	9	7
2016	169	57	50	35	15	3	8	

(a) Piedmont's pretax employer matching contributions were $1 million and $7 million during the two months ended December 31, 2016, and for the year ended October 31, 2016, respectively.

Money Purchase Pension Plan

Piedmont sponsored the MPP plan, which is a defined contribution pension plan that allowed employees to direct investments and assume risk of investment returns. Under the MPP plan, Piedmont annually deposited a percentage of each participant's pay into an account of the MPP plan. This contribution equaled 4 percent of the participant's eligible compensation plus an additional 4 percent of eligible compensation above the Social Security wage base up to the IRS compensation limit. The participant was vested in MPP plan after three years of service. No contributions were made to the MPP plan during the two months ended December 31, 2016. Piedmont contributed $2 million to the MPP plan during each of the years ended December 31, 2017, and October 31, 2016. Effective December 31, 2017, the MPP Plan was merged into the Retirement Savings Plan and the money purchase plan formula was discontinued. Beginning with the 2018 plan year, the former MPP Plan participants are eligible to receive the additional employer contribution under the Retirement Savings Plan, discussed above.

23. INCOME TAXES

Tax Act

On December 22, 2017, President Trump signed the Tax Act into law. Among other provisions, the Tax Act lowered the corporate federal income tax rate from 35 to 21 percent, limits interest deductions outside of regulated utility operations, requires the normalization of excess deferred taxes associated with property under the average rate assumption method as a prerequisite to qualifying for accelerated depreciation and repealed the federal manufacturing deduction. The Tax Act also repealed the corporate AMT and stipulates a refund of 50 percent of remaining AMT credit carryforwards (to the extent the credits exceed regular tax for the year) for tax years 2018, 2019 and 2020 with all remaining AMT credits to be refunded in tax year 2021.

On December 22, 2017, the SEC staff issued SAB 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act, which provides guidance on accounting for the Tax Act's impact. SAB 118 provides a measurement period, which in no case should extend beyond one year from the Tax Act enactment date, during which a company acting in good faith may complete the accounting for the impacts of the Tax Act under ASC Topic 740. In accordance with SAB 118, a company must reflect the income tax effects of the Tax Act in the reporting period in which the accounting under ASC Topic 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete, a company can determine a reasonable estimate for those effects and record a provisional estimate in the financial statements in the first reporting period in which a reasonable estimate can be determined.

As of December 31, 2018, the accounting for the effects of the Tax Act is complete. During the year ended December 31, 2018, Duke Energy recorded the following measurement period adjustments in accordance with SAB 118:

- Additional tax expense of $23 million related to the completion of the analysis of Duke Energy's existing regulatory liability related to deferred taxes;
- A $10 million tax benefit for the remeasurement of deferred tax assets and deferred tax liabilities primarily related to the guidance on bonus depreciation issued by the IRS in August 2018 affecting the computation of the Company's 2017 Federal income tax liability;
- Additional tax expense of $7 million related to the portion of the deferred tax asset as of December 31, 2017, that represents nondeductible long-term incentives under the Tax Act's limitation on the deductibility of executive compensation; and
- During the fourth quarter of 2018, the Company released the $76 million valuation allowance that it recorded in the first quarter of 2018 as a result of additional guidance published by the IRS that stated refundable AMT credits would not be subject to sequestration.
- The majority of Duke Energy's operations are regulated and it is expected that the Subsidiary Registrants will ultimately pass on the savings associated with the amount representing the remeasurement of deferred tax balances related to regulated operations to customers. For Duke Energy's regulated operations, where the reduction is expected to be returned to customers in future rates, the remeasurement has been deferred as a regulatory liability. During 2018, Duke Energy recorded an additional regulatory liability of $83 million, representing the revaluation of those deferred tax balances. The Subsidiary Registrants continue to respond to requests from regulators in various jurisdictions to determine the timing and magnitude of savings they will pass on to customers.

In addition, during 2018 Duke Energy reclassified $573 million of AMT credit carryforwards from noncurrent deferred tax liabilities to a current federal income tax receivable as the Company expects to receive this amount via a refund from the IRS in 2019, based on the expected filing of Duke Energy's 2018 income tax return in the second quarter of 2019.

Income Tax Expense

Components of Income Tax Expense

(in millions)	Year Ended December 31, 2018							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current income taxes								
Federal	$ (647)	$ (8)	$ (135)	$ (71)	$ (49)	$ 20	$ 29	$ 67
State	(11)	6	(5)	(5)	(10)	(1)	3	1
Foreign	3	—	—	—	—	—	—	—
Total current income taxes	(655)	(2)	(140)	(76)	(59)	19	32	68
Deferred income taxes								
Federal	1,064	299	341	256	115	21	74	(36)
State	49	11	20	(17)	45	3	22	5
Total deferred income taxes[(a)(b)]	1,113	310	361	239	160	24	96	(31)
Investment tax credit amortization	(10)	(5)	(3)	(3)	—	—	—	—
Income tax expense from continuing operations	448	303	218	160	101	43	128	37
Tax benefit from discontinued operations	(26)	—	—	—	—	—	—	—
Total income tax expense included in Consolidated Statements of Operations	$ 422	$ 303	$ 218	$ 160	$ 101	$ 43	$ 128	$ 37

(a) Includes benefits of NOL carryforwards and tax credit carryforwards of $22 million at Duke Energy Carolinas, $293 million at Progress Energy, $59 million at Duke Energy Progress, $219 million at Duke Energy Florida, $17 million at Duke Energy Ohio, $21 million at Duke Energy Indiana and $39 million at Piedmont. In addition, total deferred income taxes includes utilization of NOL carryforwards and tax credit carryforwards of $18 million at Duke Energy.

(b) For the year ended December 31, 2018, the Company has revised the December 31, 2017, estimates of the income tax effects of the Tax Act, in accordance with SAB 118. See the Statutory Rate Reconciliation section below for additional information on the Tax Act's impact on income tax expense.

(in millions)	Year Ended December 31, 2017							
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Current income taxes								
Federal	$ (247)	$ 221	$ (436)	$ (95)	$ (188)	$ (37)	$ 128	$ (90)
State	4	20	(5)	2	(11)	2	21	(3)
Foreign	3	—	—	—	—	—	—	—
Total current income taxes	(240)	241	(441)	(93)	(199)	(35)	149	(93)
Deferred income taxes								
Federal	1,344	381	664	378	194	99	138	147
State	102	35	44	10	51	(4)	14	8
Total deferred income taxes[(a)(b)]	1,446	416	708	388	245	95	152	155
Investment tax credit amortization	(10)	(5)	(3)	(3)	—	(1)	—	—
Income tax expense from continuing operations	1,196	652	264	292	46	59	301	62
Tax benefit from discontinued operations	(6)	—	—	—	—	—	—	—
Total income tax expense included in Consolidated Statements of Operations	$ 1,190	$ 652	$ 264	$ 292	$ 46	$ 59	$ 301	$ 62

(a) Includes utilization of NOL carryforwards and tax credit carryforwards of $428 million at Duke Energy, $74 million at Progress Energy, $36 million at Duke Energy Florida, $17 million at Duke Energy Ohio, $42 million at Duke Energy Indiana and $79 million at Piedmont. In addition, total deferred income taxes includes benefits of NOL carryforwards and tax credit carryforwards of $10 million at Duke Energy Carolinas and $1 million at Duke Energy Progress.

(b) As a result of the Tax Act, Duke Energy's deferred tax assets and liabilities were revalued as of December 31, 2017. See the Statutory Rate Reconciliation section below for additional information on the Tax Act's impact on income tax expense.

(in millions)	Year Ended December 31, 2016						
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Current income taxes							
Federal	$ —	$ 139	$ 15	$ (59)	$ 76	$ (7)	$ 7
State	(15)	25	(19)	(25)	22	(13)	6
Foreign	2	—	—	—	—	—	—
Total current income taxes	(13)	164	(4)	(84)	98	(20)	13
Deferred income taxes							
Federal	1,064	430	486	350	199	88	202
State	117	45	50	40	25	11	11
Total deferred income taxes[(a)]	1,181	475	536	390	224	99	213
Investment tax credit amortization	(12)	(5)	(5)	(5)	—	(1)	(1)
Income tax expense from continuing operations	1,156	634	527	301	322	78	225
Tax (benefit) expense from discontinued operations	(30)	—	1	—	—	(36)	—
Total income tax expense included in Consolidated Statements of Operations	$ 1,126	$ 634	$ 528	$ 301	$ 322	$ 42	$ 225

(a) Includes benefits of NOL carryforwards and utilization of NOL and tax credit carryforwards of $648 million at Duke Energy, $4 million at Duke Energy Carolinas, $190 million at Progress Energy, $60 million at Duke Energy Progress, $49 million at Duke Energy Florida, $26 million at Duke Energy Ohio and $58 million at Duke Energy Indiana.

(in millions)	Piedmont	
	Two Months Ended December 31, 2016	Year Ended October 31, 2016
Current income taxes		
Federal	$ 4	$ 27
State	(2)	12
Total current income taxes	2	39
Deferred income taxes		
Federal	24	79
State	6	6
Total deferred income taxes[(a)]	30	85
Total income tax expense from continuing operations included in Consolidated Statements of Operations	$ 32	$ 124

(a) Includes benefits of NOL and tax carryforwards of $17 million and $91 million for the two months ended December 31, 2016, and the year ended October 31, 2016, respectively.

Duke Energy Income from Continuing Operations before Income Taxes

(in millions)	Years Ended December 31,		
	2018	2017	2016
Domestic[(a)]	**$ 3,018**	$ 4,207	$ 3,689
Foreign	**55**	59	45
Income from continuing operations before income taxes	**$ 3,073**	$ 4,266	$ 3,734

(a) Includes a $16 million expense in 2017 related to the Tax Act impact on equity earnings included within Equity in earnings (losses) of unconsolidated affiliates on the Consolidated Statement of Operations.

Taxes on Foreign Earnings

In February 2016, Duke Energy announced it had initiated a process to divest the International Disposal Group and, accordingly, no longer intended to indefinitely reinvest post-2014 undistributed foreign earnings. This change in the company's intent, combined with the extension of bonus depreciation by Congress in late 2015, allowed Duke Energy to more efficiently utilize foreign tax credits and reduce U.S. deferred tax liabilities associated with the historical unremitted foreign earnings by approximately $95 million during the year ended December 31, 2016.

Due to the classification of the International Disposal Group as discontinued operations beginning in the fourth quarter of 2016, income tax amounts related to the International Disposal Group's foreign earnings are presented within Income (Loss) From Discontinued Operations, net of tax on the Consolidated Statements of Operations. In December 2016, Duke Energy closed on the sale of the International Disposal Group in two separate transactions to execute the divestiture. See Note 2 for additional information on the sale.

Statutory Rate Reconciliation

The following tables present a reconciliation of income tax expense at the U.S. federal statutory tax rate to the actual tax expense from continuing operations.

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Income tax expense, computed at the statutory rate of 21 percent	$ 645	$ 288	$ 263	$ 174	$ 137	$ 46	$ 109	$ 35
State income tax, net of federal income tax effect	30	14	13	(17)	28	2	20	4
Amortization of excess deferred income tax	(61)	—	(55)	(1)	(54)	(3)	(2)	—
AFUDC equity income	(42)	(15)	(22)	(12)	(10)	(2)	(2)	—
AFUDC equity depreciation	31	18	9	5	4	1	4	—
Renewable energy production tax credits	(129)	—	—	—	—	—	—	—
Other tax credits	(28)	(7)	(13)	(5)	(8)	(1)	(1)	(3)
Tax Act[(a)]	20	1	25	19	—	2	—	—
Other items, net	(18)	4	(2)	(3)	4	(2)	—	1
Income tax expense from continuing operations	$ 448	$ 303	$ 218	$ 160	$ 101	$ 43	$ 128	$ 37
Effective tax rate	14.6%	22.1%	17.4%	19.3%	15.4%	19.6%	24.6%	22.3%

(a) For the year ended December 31, 2018, the Company revised the December 31, 2017 estimates of the income tax effects of the Tax Act, in accordance with SAB 118. Amounts primarily include but are not limited to items that are excluded for ratemaking purposes related certain wholesale fixed rate contracts, remeasurement of nonregulated net deferred tax liabilities, Federal net operating losses, and valuation allowance on foreign tax credits.

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Income tax expense, computed at the statutory rate of 35 percent	$ 1,493	$ 653	$ 536	$ 353	$ 265	$ 88	$ 229	$ 70
State income tax, net of federal income tax effect	69	36	25	8	26	(1)	23	3
AFUDC equity income	(81)	(37)	(32)	(17)	(16)	(4)	(8)	—
Renewable energy production tax credits	(132)	—	—	—	—	—	—	—
Tax Act[(a)]	(112)	15	(246)	(40)	(226)	(23)	55	(12)
Tax true up	(52)	(24)	(19)	(13)	(7)	(5)	(6)	—
Other items, net	11	9	—	1	4	4	8	1
Income tax expense from continuing operations	$ 1,196	$ 652	$ 264	$ 292	$ 46	$ 59	$ 301	$ 62
Effective tax rate	28.0%	34.9%	17.2%	29.0%	6.1%	23.4%	46.0%	30.8%

(a) Amounts primarily include but are not limited to items that are excluded for ratemaking purposes related to abandoned or impaired assets, certain wholesale fixed rate contracts, remeasurement of nonregulated net deferred tax liabilities, Federal net operating losses, and valuation allowance on foreign tax credits.

	Year Ended December 31, 2016						
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Income tax expense, computed at the statutory rate of 35 percent	$ 1,307	$ 630	$ 548	$ 315	$ 306	$ 95	$ 212
State income tax, net of federal income tax effect	64	46	20	10	30	(2)	11
AFUDC equity income	(70)	(36)	(26)	(17)	(9)	(2)	(6)
Renewable energy production tax credits	(97)	—	—	—	—	—	—
Audit adjustment	5	3	—	—	—	—	—
Tax true up	(14)	(14)	(11)	(3)	(9)	(16)	2
Other items, net	(39)	5	(4)	(4)	4	3	6
Income tax expense from continuing operations	$ 1,156	$ 634	$ 527	$ 301	$ 322	$ 78	$ 225
Effective tax rate	31.0%	35.2%	33.7%	33.4%	36.9%	28.9%	37.1%

	Piedmont	
	Two Months Ended	Year Ended October 31,
(in millions)	December 31, 2016	2016
Income tax expense, computed at the statutory rate of 35 percent	$ 30	$ 111
State income tax, net of federal income tax effect	1	11
Other items, net	1	2
Income tax expense from continuing operations	$ 32	$ 124
Effective tax rate	37.2%	39.1%

Valuation allowances have been established for certain state NOL carryforwards and state income tax credits that reduce deferred tax assets to an amount that will be realized on a more-likely-than-not basis. The net change in the total valuation allowance is included in the State income tax, net of federal income tax effect in the above tables.

DEFERRED TAXES

Net Deferred Income Tax Liability Components

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Deferred credits and other liabilities	$ 164	$ 64	$ 35	$ 53	$ —	$ 17	$ 6	$ 17
Capital lease obligations	60	26	—	—	—	—	2	—
Pension, post-retirement and other employee benefits	347	24	110	47	58	16	24	(1)
Progress Energy merger purchase accounting adjustments[a]	483	—	—	—	—	—	—	—
Tax credits and NOL carryforwards	4,580	257	693	215	363	42	237	110
Regulatory liabilities and deferred credits	—	—	—	—	—	56	—	48
Investments and other assets	—	—	—	—	—	18	—	16
Other	25	6	5	5	—	1	(1)	—
Valuation allowance	(484)	—	—	—	—	—	—	—
Total deferred income tax assets	5,175	377	843	320	421	150	268	190
Investments and other assets	(1,317)	(795)	(430)	(272)	(163)	—	(5)	—
Accelerated depreciation rates	(10,124)	(3,207)	(3,369)	(1,735)	(1,670)	(967)	(1,081)	(733)
Regulatory assets and deferred debits, net	(1,540)	(64)	(985)	(432)	(574)	—	(191)	—
Other	—	—	—	—	—	—	—	(8)
Total deferred income tax liabilities	(12,981)	(4,066)	(4,784)	(2,439)	(2,407)	(967)	(1,277)	(741)
Net deferred income tax liabilities	$ (7,806)	$ (3,689)	$ (3,941)	$ (2,119)	$ (1,986)	$ (817)	$ (1,009)	$ (551)

(a) Primarily related to capital lease obligations and debt fair value adjustments.

The following table presents the expiration of tax credits and NOL carryforwards.

	December 31, 2018		
(in millions)	Amount	Expiration Year	
Investment tax credits	$ 1,614	2024 —	2038
Alternative minimum tax credits	574	Refundable by 2021	
Federal NOL carryforwards[a][e]	788	2022 —	Indefinite
State NOL carryforwards and credits[b][e]	301	2019 —	Indefinite
Foreign NOL carryforwards[c]	12	2027 —	2037
Foreign Tax Credits[d]	1,271	2024 —	2027
Charitable contribution carryforwards	20	2019 —	2023
Total tax credits and NOL carryforwards	$ 4,580		

(a) A valuation allowance of $4 million has been recorded on the Federal NOL carryforwards, as presented in the Net Deferred Income Tax Liability Components table.
(b) A valuation allowance of $85 million has been recorded on the state NOL carryforwards, as presented in the Net Deferred Income Tax Liability Components table.
(c) A valuation allowance of $12 million has been recorded on the foreign NOL carryforwards, as presented in the Net Deferred Income Tax Liability Components table.
(d) A valuation allowance of $383 million has been recorded on the foreign tax credits, as presented in the Net Deferred Income Tax Liability Components table.
(e) Indefinite carryforward for Federal NOLs, and NOLs for states that have adopted the Tax Act's NOL provisions, generated in tax years beginning after December 31, 2017.

	December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Deferred credits and other liabilities	$ 143	$ 33	$ 78	$ 23	$ 49	$ 11	$ 6	$ (5)
Capital lease obligations	49	14	—	—	—	—	2	—
Pension, post-retirement and other employee benefits	295	(17)	111	44	60	14	18	(4)
Progress Energy merger purchase accounting adjustments[(a)]	536	—	—	—	—	—	—	—
Tax credits and NOL carryforwards	4,527	234	402	156	143	25	216	70
Regulatory liabilities and deferred credits	—	222	—	—	—	65	—	61
Investments and other assets	—	—	—	—	—	—	1	18
Other	73	10	1	4	—	—	—	—
Valuation allowance	(519)	—	(14)	—	—	—	—	—
Total deferred income tax assets	5,104	496	578	227	252	115	243	140
Investments and other assets	(1,419)	(849)	(470)	(289)	(187)	—	(14)	—
Accelerated depreciation rates	(9,216)	(3,060)	(2,803)	(1,583)	(1,257)	(896)	(966)	(697)
Regulatory assets and deferred debits, net	(1,090)	—	(807)	(238)	(569)	—	(188)	—
Other	—	—	—	—	—	—	—	(7)
Total deferred income tax liabilities	(11,725)	(3,909)	(4,080)	(2,110)	(2,013)	(896)	(1,168)	(704)
Net deferred income tax liabilities	$ (6,621)	$ (3,413)	$ (3,502)	$ (1,883)	$ (1,761)	$ (781)	$ (925)	$ (564)

(a) Primarily related to capital lease obligations and debt fair value adjustments.

On June 28, 2017, the North Carolina General Assembly amended N.C. Gen. Stat. 105-130.3, reducing the North Carolina corporate income tax rate from a statutory rate of 3.0 to 2.5 percent beginning January 1, 2019. Duke Energy recorded a net reduction of approximately $55 million to their North Carolina deferred tax liabilities in the second quarter of 2017. The significant majority of this deferred tax liability reduction was offset by recording a regulatory liability pending NCUC determination of the disposition of amounts related to Duke Energy Carolinas, Duke Energy Progress and Piedmont. The impact did not have a significant impact on the financial position, results of operation or cash flows of Duke Energy, Duke Energy Carolinas, Progress Energy or Duke Energy Progress.

UNRECOGNIZED TAX BENEFITS

The following tables present changes to unrecognized tax benefits.

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Unrecognized tax benefits – January 1	$ 25	$ 5	$ 5	$ 5	$ 5	$ 1	$ 1	$ 3
Unrecognized tax benefits increases (decreases)								
Gross decreases – tax positions in prior periods	(2)	(1)	—	—	(4)	—	—	—
Gross increases – current period tax positions	7	2	4	1	2	—	—	1
Decreases due to settlements	(6)	—	—	—	—	—	—	—
Total changes	(1)	1	4	1	(2)	—	—	1
Unrecognized tax benefits – December 31	$ 24	$ 6	$ 9	$ 6	$ 3	$ 1	$ 1	$ 4

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Unrecognized tax benefits – January 1	$ 17	$ 1	$ 2	$ 2	$ 4	$ 4	$ —	$ —
Unrecognized tax benefits increases (decreases)								
Gross increases – tax positions in prior periods	12	4	3	3	1	1	1	3
Gross decreases – tax positions in prior periods	(4)	—	—	—	—	(4)	—	—
Total changes	8	4	3	3	1	(3)	1	3
Unrecognized tax benefits – December 31	$ 25	$ 5	$ 5	$ 5	$ 5	$ 1	$ 1	$ 3

	Year Ended December 31, 2016						
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Unrecognized tax benefits – January 1	$ 88	$ 72	$ 1	$ 3	$ —	$ —	$ 1
Unrecognized tax benefits increases (decreases)							
Gross increases – tax positions in prior periods	—	—	—	—	4	4	—
Gross decreases – tax positions in prior periods	(4)	(4)	(1)	(1)	—	—	—
Decreases due to settlements	(68)	(67)	—	—	—	—	(1)
Reduction due to lapse of statute of limitations	1	—	2	—	—	—	—
Total changes	(71)	(71)	1	(1)	4	4	(1)
Unrecognized tax benefits – December 31	$ 17	$ 1	$ 2	$ 2	$ 4	$ 4	$ —

The following table includes additional information regarding the Duke Energy Registrants' unrecognized tax benefits at December 31, 2018. All Duke Energy Registrants do not anticipate a material increase or decrease in unrecognized tax benefits within the next 12 months.

	December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Amount that if recognized, would affect the effective tax rate or regulatory liability[a]	**$ 21**	**$ 6**	**$ 9**	**$ 6**	**$ 3**	**$ 1**	**$ 1**	**$ 4**
Amount that if recognized, would be recorded as a component of discontinued operations	**2**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

(a) Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont are unable to estimate the specific amounts that would affect the effective tax rate versus the regulatory liability.

OTHER TAX MATTERS

The following tables include interest recognized in the Consolidated Statements of Operations and the Consolidated Balance Sheets.

	Year Ended December 31, 2018		
(in millions)	Duke Energy	Progress Energy	Duke Energy Progress
Net interest income recognized related to income taxes	$ 2	$ —	$ —
Interest payable related to income taxes	3	1	1

	Year Ended December 31, 2017				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Net interest income recognized related to income taxes	$ —	$ —	$ 1	$ —	$ 1
Net interest expense recognized related to income taxes	—	2	—	—	—
Interest payable related to income taxes	5	25	1	1	—

	Year Ended December 31, 2016				
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida
Net interest income recognized related to income taxes	$ —	$ —	$ 1	$ —	$ 2
Net interest expense recognized related to income taxes	—	7	—	—	—
Interest payable related to income taxes	4	23	1	1	—

Piedmont recognized $1 million in net interest income related to income taxes in the Consolidated Statements of Operations for the year ended October 31, 2016.

Duke Energy and its subsidiaries are no longer subject to U.S. federal examination for years before 2015. With few exceptions, Duke Energy and its subsidiaries are no longer subject to state, local or non-U.S. income tax examinations by tax authorities for years before 2015.

24. OTHER INCOME AND EXPENSES, NET

The components of Other income and expenses, net on the Consolidated Statements of Operations are as follows.

	Year Ended December 31, 2018							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Interest income	$ 20	$ 1	$ 18	$ 1	$ 18	$ 7	$ 9	$ 1
AFUDC equity	221	73	104	57	47	11	32	—
Post in-service equity returns	15	9	5	5	—	1	—	—
Nonoperating income, other	143	70	38	24	21	4	4	13
Other income and expense, net	$ 399	$ 153	$ 165	$ 87	$ 86	$ 23	$ 45	$ 14

	Year Ended December 31, 2017							
(in millions)	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
Interest income	$ 13	$ 2	$ 6	$ 2	$ 5	$ 6	$ 8	$ —
AFUDC equity	237	106	92	47	45	11	28	—
Post in-service equity returns	40	28	12	12	—	—	—	—
Nonoperating income, other	218	63	99	54	46	6	11	(11)
Other income and expense, net	$ 508	$ 199	$ 209	$ 115	$ 96	$ 23	$ 47	$ (11)

(in millions)	Year Ended December 31, 2016						
	Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana
Interest income	$ 21	$ 4	$ 4	$ 3	$ 2	$ 5	$ 6
AFUDC equity	200	102	76	50	26	6	16
Post in-service equity returns	67	55	12	12	—	—	—
Nonoperating income, other	175	53	94	67	35	—	4
Other income and expense, net[(a)]	$ 463	$ 214	$ 186	$ 132	$ 63	$ 11	$ 26

(a) Amounts for Piedmont for the two months ended December 31, 2016, and for the year ended October 31, 2016, were not material.

25. SUBSEQUENT EVENTS

For information on subsequent events related to the adoption of the new lease accounting standard, regulatory matters, commitments and contingencies and debt and credit facilities, see Notes 1, 4, 5 and 6, respectively.

26. QUARTERLY FINANCIAL DATA (UNAUDITED)

DUKE ENERGY

Quarterly EPS amounts may not sum to the full-year total due to changes in the weighted average number of common shares outstanding and rounding.

(in millions, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 6,135**	**$ 5,643**	**$ 6,628**	**$ 6,115**	**$ 24,521**
Operating income	**1,256**	**979**	**1,579**	**871**	**4,685**
Income from continuing operations	**622**	**507**	**1,062**	**434**	**2,625**
(Loss) Income from discontinued operations, net of tax	**—**	**(5)**	**4**	**20**	**19**
Net income	**622**	**502**	**1,066**	**454**	**2,644**
Net income attributable to Duke Energy Corporation	**620**	**500**	**1,082**	**464**	**2,666**
Earnings per share:					
Income from continuing operations attributable to Duke Energy Corporation common stockholders					
Basic	**$ 0.88**	**$ 0.72**	**$ 1.51**	**$ 0.62**	**$ 3.73**
Diluted	**$ 0.88**	**$ 0.72**	**$ 1.51**	**$ 0.62**	**$ 3.73**
(Loss) Income from discontinued operations attributable to Duke Energy Corporation common stockholders					
Basic	**$ —**	**$ (0.01)**	**$ —**	**$ 0.03**	**$ 0.03**
Diluted	**$ —**	**$ (0.01)**	**$ —**	**$ 0.03**	**$ 0.03**
Net income attributable to Duke Energy Corporation common stockholders					
Basic	**$ 0.88**	**$ 0.71**	**$ 1.51**	**$ 0.65**	**$ 3.76**
Diluted	**$ 0.88**	**$ 0.71**	**$ 1.51**	**$ 0.65**	**$ 3.76**
2017					
Operating revenues	$ 5,729	$ 5,555	$ 6,482	$ 5,799	$ 23,565
Operating income	1,402	1,353	1,661	1,209	5,625
Income from continuing operations	717	691	957	705	3,070
Loss from discontinued operations, net of tax	—	(2)	(2)	(2)	(6)
Net income	717	689	955	703	3,064
Net income attributable to Duke Energy Corporation	716	686	954	703	3,059
Earnings per share:					
Income from continuing operations attributable to Duke Energy Corporation common stockholders					
Basic	$ 1.02	$ 0.98	$ 1.36	$ 1.00	$ 4.37
Diluted	$ 1.02	$ 0.98	$ 1.36	$ 1.00	$ 4.37
Loss from discontinued operations attributable to Duke Energy Corporation common stockholders					
Basic	$ —	$ —	$ —	$ —	$ (0.01)
Diluted	$ —	$ —	$ —	$ —	$ (0.01)
Net income attributable to Duke Energy Corporation common stockholders					
Basic	$ 1.02	$ 0.98	$ 1.36	$ 1.00	$ 4.36
Diluted	$ 1.02	$ 0.98	$ 1.36	$ 1.00	$ 4.36

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (17)**	**$ (20)**	**$ (16)**	**$ (31)**	**$ (84)**
Regulatory and Legislative Impacts (see Note 4)	**(86)**	**(179)**	**—**	**—**	**(265)**
Sale of Retired Plant (see Note 3)	**(107)**	**—**	**—**	**—**	**(107)**
Impairment Charges (see Notes 4, 11 and 12)	**(55)**	**—**	**(93)**	**(60)**	**(208)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(187)**	**(187)**
Impacts of the Tax Act (see Note 23)	**(76)**	**—**	**3**	**53**	**(20)**
Total	**$ (341)**	**$ (199)**	**$ (106)**	**$ (225)**	**$ (871)**
2017					
Costs to Achieve Mergers (see Note 2)	$ (16)	$ (30)	$ (23)	$ (34)	$ (103)
Regulatory Settlements (see Note 4)	—	—	(135)	(23)	(158)
Commercial Renewables Impairments (see Notes 10 and 11)	—	—	(84)	(18)	(102)
Impacts of the Tax Act (see Note 23)	—	—	—	102	102
Total	$ (16)	$ (30)	$ (242)	$ 27	$ (261)

DUKE ENERGY CAROLINAS

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 1,763**	**$ 1,672**	**$ 2,090**	**$ 1,775**	**$ 7,300**
Operating income	**482**	**224**	**713**	**241**	**1,660**
Net income	**323**	**117**	**496**	**135**	**1,071**
2017					
Operating revenues	$ 1,716	$ 1,729	$ 2,136	$ 1,721	$ 7,302
Operating income	471	471	763	384	2,089
Net income	270	273	466	205	1,214

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (4)**	**$ (2)**	**$ (2)**	**$ (1)**	**$ (9)**
Regulatory and Legislative Impacts (see Note 4)	**(19)**	**(179)**	**—**	**—**	**(198)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(102)**	**(102)**
Impacts of the Tax Act (see Note 23)	**—**	**—**	**(1)**	**—**	**(1)**
Total	**$ (23)**	**$ (181)**	**$ (3)**	**$ (103)**	**$ (310)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (4)	$ (6)	$ (5)	$ (5)	$ (20)
Impacts of the Tax Act (see Note 23)	—	—	—	(15)	(15)
Total	$ (4)	$ (6)	$ (5)	$ (20)	$ (35)

PROGRESS ENERGY

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 2,576**	**$ 2,498**	**$ 3,045**	**$ 2,609**	**$ 10,728**
Operating income	**447**	**484**	**663**	**334**	**1,928**
Net income	**237**	**267**	**406**	**123**	**1,033**
Net income attributable to Parent	**235**	**265**	**404**	**123**	**1,027**
2017					
Operating revenues	$ 2,179	$ 2,392	$ 2,864	$ 2,348	$ 9,783
Operating income	471	576	641	459	2,147
Net income	201	277	343	447	1,268
Net income attributable to Parent	199	274	341	444	1,258

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (4)**	**$ (3)**	**$ (1)**	**$ (2)**	**$ (10)**
Regulatory and Legislative Impacts (see Note 4)	**(67)**	**—**	**—**	**—**	**(67)**
Impairment Charges (see Note 4)	**—**	**—**	**—**	**(60)**	**(60)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(69)**	**(69)**
Impacts of the Tax Act (see Note 23)	**(1)**	**—**	**(5)**	**(19)**	**(25)**
Total	**$ (72)**	**$ (3)**	**$ (6)**	**$ (150)**	**$ (231)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (4)	$ (7)	$ (6)	$ (6)	$ (23)
Regulatory Settlements (see Note 4)	—	—	(135)	(23)	(158)
Impacts of the Tax Act (see Note 23)	—	—	—	246	246
Total	$ (4)	$ (7)	$ (141)	$ 217	$ 65

DUKE ENERGY PROGRESS

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 1,460**	**$ 1,291**	**$ 1,582**	**$ 1,366**	**$ 5,699**
Operating income	**269**	**233**	**330**	**227**	**1,059**
Net income	**177**	**139**	**216**	**135**	**667**
2017					
Operating revenues	$ 1,219	$ 1,199	$ 1,460	$ 1,251	$ 5,129
Operating income	274	270	398	243	1,185
Net income	147	154	246	168	715

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (2)**	**$ (2)**	**$ (1)**	**$ (1)**	**$ (6)**
Regulatory and Legislative Impacts (see Note 4)	**(67)**	**—**	**—**	**—**	**(67)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(52)**	**(52)**
Impacts of the Tax Act (see Note 23)	**—**	**—**	**(4)**	**(15)**	**(19)**
Total	**$ (69)**	**$ (2)**	**$ (5)**	**$ (68)**	**$ (144)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (2)	$ (4)	$ (4)	$ (4)	$ (14)
Regulatory Settlements (see Note 4)	—	—	—	(23)	(23)
Impacts of the Tax Act (see Note 23)	—	—	—	40	40
Total	$ (2)	$ (4)	$ (4)	$ 13	$ 3

DUKE ENERGY FLORIDA

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 1,115**	**$ 1,203**	**$ 1,462**	**$ 1,241**	**$ 5,021**
Operating income	**173**	**245**	**331**	**107**	**856**
Net income	**103**	**168**	**243**	**40**	**554**
2017					
Operating revenues	$ 959	$ 1,191	$ 1,401	$ 1,095	$ 4,646
Operating income	192	301	236	212	941
Net income	90	158	120	344	712

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (2)**	**$ (1)**	**$ —**	**$ (1)**	**$ (4)**
Impairment Charges (see Note 4)	**—**	**—**	**—**	**(60)**	**(60)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(17)**	**(17)**
Impacts of the Tax Act (see Note 23)	**—**	**—**	**(2)**	**2**	**—**
Total	**$ (2)**	**$ (1)**	**$ (2)**	**$ (76)**	**$ (81)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (2)	$ (3)	$ (2)	$ (2)	$ (9)
Regulatory Settlements (see Note 4)	—	—	(135)	—	(135)
Impacts of the Tax Act (see Note 23)	—	—	—	226	226
Total	$ (2)	$ (3)	$ (137)	$ 224	$ 82

DUKE ENERGY OHIO

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 524**	**$ 459**	**$ 469**	**$ 505**	**$ 1,957**
Operating (loss) income	**(21)**	**77**	**139**	**93**	**288**
Net (loss) income	**(25)**	**46**	**100**	**55**	**176**
2017					
Operating revenues	$ 518	$ 437	$ 471	$ 497	$ 1,923
Operating income	82	64	101	73	320
Loss from discontinued operations, net of tax	—	—	(1)	—	(1)
Net income	42	30	55	65	192

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (3)**	**$ (5)**	**$ —**	**$ (6)**	**$ (14)**
Sale of Retired Plant (see Note 3)	**(107)**	**—**	**—**	**—**	**(107)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(6)**	**(6)**
Impacts of the Tax Act (see Note 23)	**—**	**—**	**—**	**(2)**	**(2)**
Total	**$ (110)**	**$ (5)**	**$ —**	**$ (14)**	**$ (129)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (1)	$ (1)	$ (2)	$ (2)	$ (6)
Impacts of the Tax Act (see Note 23)	—	—	—	23	23
Total	$ (1)	$ (1)	$ (2)	$ 21	$ 17

DUKE ENERGY INDIANA

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 731**	**$ 738**	**$ 819**	**$ 771**	**$ 3,059**
Operating income	**168**	**169**	**173**	**133**	**643**
Net income	**100**	**98**	**119**	**76**	**393**
2017					
Operating revenues	$ 758	$ 742	$ 802	$ 745	$ 3,047
Operating income	184	208	228	166	786
Net income	91	106	121	36	354

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ —**	**$ —**	**$ (2)**	**$ —**	**$ (2)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(7)**	**(7)**
Total	**$ —**	**$ —**	**$ (2)**	**$ (7)**	**$ (9)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (1)	$ (2)	$ (2)	$ (1)	$ (6)
Impacts of the Tax Act (see Note 23)	—	—	—	(55)	(55)
Total	$ (1)	$ (2)	$ (2)	$ (56)	$ (61)

PIEDMONT

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Operating revenues	**$ 553**	**$ 215**	**$ 172**	**$ 435**	**$ 1,375**
Operating income (loss)	**161**	**5**	**(19)**	**79**	**226**
Net income (loss)	**110**	**(8)**	**(21)**	**48**	**129**
2017					
Operating revenues	$ 500	$ 201	$ 183	$ 444	$ 1,328
Operating income (loss)	170	5	(4)	126	297
Net income (loss)	95	(8)	(11)	63	139

The following table includes unusual or infrequently occurring items in each quarter during the two most recently completed fiscal years. All amounts discussed below are pretax.

(in millions)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total
2018					
Costs to Achieve Piedmont Merger (see Note 2)	**$ (6)**	**$ (9)**	**$ (11)**	**$ (22)**	**$ (48)**
Severance Charges (see Note 20)	**—**	**—**	**—**	**(2)**	**(2)**
Total	**$ (6)**	**$ (9)**	**$ (11)**	**$ (24)**	**$ (50)**
2017					
Costs to Achieve Piedmont Merger (see Note 2)	$ (6)	$ (13)	$ (8)	$ (19)	$ (46)
Impacts of the Tax Act (see Note 23)	—	—	—	2	2
Total	$ (6)	$ (13)	$ (8)	$ (17)	$ (44)

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures that are designed to ensure that information required to be disclosed by the Duke Energy Registrants in the reports they file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified by the SEC rules and forms.

Disclosure controls and procedures include, without limitation, controls and procedures designed to provide reasonable assurance that information required to be disclosed by the Duke Energy Registrants in the reports they file or submit under the Exchange Act is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer, the Duke Energy Registrants have evaluated the effectiveness of their disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2018, and, based upon this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that these controls and procedures are effective in providing reasonable assurance of compliance.

Changes in Internal Control Over Financial Reporting

Under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer, the Duke Energy Registrants have evaluated changes in internal control over financial reporting (as such term is defined in Rules 13a-15 and 15d-15 under the Exchange Act) that occurred during the fiscal quarter ended December 31, 2018, and have concluded no change has materially affected, or is reasonably likely to materially affect, internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

The Duke Energy Registrants' management is responsible for establishing and maintaining an adequate system of internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). The Duke Energy Registrants' internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes, in accordance with generally accepted accounting principles in the United States. Due to inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness of the internal control over financial reporting to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies and procedures may deteriorate.

The Duke Energy Registrants' management, including their Chief Executive Officer and Chief Financial Officer, has conducted an evaluation of the effectiveness of their internal control over financial reporting as of December 31, 2018, based on the framework in the Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, management concluded that its internal controls over financial reporting were effective as of December 31, 2018.

Deloitte & Touche LLP, Duke Energy's independent registered public accounting firm, has issued an attestation report on the effectiveness of Duke Energy's internal control over financial reporting, which is included herein. This report is not applicable to the Subsidiary Registrants as these companies are not accelerated or large accelerated filers.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Duke Energy Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Duke Energy Corporation and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of December 31, 2018, of the Company and our report dated February 28, 2019, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Charlotte, North Carolina
February 28, 2019

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding Duke Energy's Executive Officers is set forth in Part I, Item 1, "Business – Executive Officers of the Registrants," in this Annual Report on Form 10-K. Duke Energy will provide information that is responsive to the remainder of this Item 10 in its definitive proxy statement or in an amendment to this Annual Report not later than 120 days after the end of the fiscal year covered by this Annual Report. That information is incorporated in this Item 10 by reference.

ITEM 11. EXECUTIVE COMPENSATION

Duke Energy will provide information that is responsive to this Item 11 in its definitive proxy statement or in an amendment to this Annual Report not later than 120 days after the end of the fiscal year covered by this Annual Report. That information is incorporated in this Item 11 by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Equity Compensation Plan Information

The following table shows information as of December 31, 2018, about securities to be issued upon exercise of outstanding options, warrants and rights under Duke Energy's equity compensation plans, along with the weighted-average exercise price of the outstanding options, warrants and rights and the number of securities remaining available for future issuance under the plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)[1]	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	3,729,606 [2]	n/a	6,080,741 [3]
Equity compensation plans not approved by security holders	186,900 [4]	n/a	n/a [5]
Total	3,916,506	n/a	6,080,741

(1) As of December 31, 2018, no options were outstanding under equity compensation plans.
(2) Includes restricted stock units and performance shares (assuming the maximum payout level) granted under the Duke Energy Corporation 2015 Long-Term Incentive Plan, as well as shares that could be payable with respect to certain compensation deferred under the Executive Savings Plan or the Directors' Savings Plan.
(3) Includes shares remaining available for issuance pursuant to stock awards under the Duke Energy Corporation 2015 Long-Term Incentive Plan.
(4) Includes shares that could be payable with respect to certain compensation deferred under the Executive Savings Plan or and the Directors' Savings Plan, each of which is a non-qualified deferred compensation plan described in more detail below.
(5) The number of shares remaining available for future issuance under equity compensation plans not approved by security holders cannot be determined because it is based on the amount of future voluntary deferrals, if any, under the Executive Savings Plan and the Directors' Savings Plan.

Under the Executive Savings Plan, participants can elect to defer a portion of their base salary and short-term incentive compensation. Participants also receive a company matching contribution in excess of the contribution limits prescribed by the Internal Revenue Code under the Duke Energy Retirement Savings Plan, which is the 401(k) plan in which employees are generally eligible to participate. In general, payments are made following termination of employment or death in the form of a lump sum or installments, as selected by the participant. Participants may direct the deemed investment of base salary deferrals, short-term incentive compensation deferrals and matching contributions among investment options available under the Duke Energy Retirement Savings Plan, including the Duke Energy Common Stock Fund. Participants may change their investment elections on a daily basis. Deferrals of equity awards are credited with earnings and losses based on the performance of the Duke Energy Common Stock Fund. The benefits payable under the plan are unfunded and subject to the claims of Duke Energy's creditors.

Under the Directors' Savings Plan, outside directors may elect to defer all or a portion of their annual compensation, generally consisting of retainers. Deferred amounts are credited to an unfunded account, the balance of which is adjusted for the performance of phantom investment options, including the Duke Energy common stock fund, as elected by the director, and generally are paid when the director terminates his or her service from the Board of Directors.

Duke Energy will provide additional information that is responsive to this Item 12 in its definitive proxy statement or in an amendment to this Annual Report not later than 120 days after the end of the fiscal year covered by this Annual Report. That information is incorporated in this Item 12 by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Duke Energy will provide information that is responsive to this Item 13 in its definitive proxy statement or in an amendment to this Annual Report not later than 120 days after the end of the fiscal year covered by this Annual Report. That information is incorporated in this Item 13 by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Deloitte provided professional services to the Duke Energy Registrants. The following tables present the Deloitte fees for services rendered to the Duke Energy Registrants during 2018 and 2017.

	Year Ended December 31, 2018							
(in millions)	**Duke Energy**	**Duke Energy Carolinas**	**Progress Energy**	**Duke Energy Progress**	**Duke Energy Florida**	**Duke Energy Ohio**	**Duke Energy Indiana**	**Piedmont**
Types of Fees								
Audit Fees[(a)]	**$ 14.0**	**$ 5.0**	**$ 5.5**	**$ 3.3**	**$ 2.2**	**$ 0.9**	**$ 1.4**	**$ 0.8**
Audit-Related Fees[(b)]	**0.4**	**—**	**0.1**	**—**	**0.1**	**—**	**—**	**—**
Tax Fees[(c)]	**0.6**	**0.2**	**0.2**	**0.1**	**0.1**	**—**	**0.1**	**0.1**
Other Fees[(d)]	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total Fees	**$ 15.0**	**$ 5.2**	**$ 5.8**	**$ 3.4**	**$ 2.4**	**$ 0.9**	**$ 1.5**	**$ 0.9**

	Year Ended December 31, 2017							
(in millions)	**Duke Energy**	**Duke Energy Carolinas**	**Progress Energy**	**Duke Energy Progress**	**Duke Energy Florida**	**Duke Energy Ohio**	**Duke Energy Indiana**	**Piedmont**
Types of Fees								
Audit Fees[(a)]	$ 13.6	$ 4.7	$ 5.6	$ 3.1	$ 2.4	$ 0.8	$ 1.4	$ 0.8
Audit-Related Fees[(b)]	0.2	—	—	—	—	—	—	—
Tax Fees[(c)]	1.7	0.6	0.1	0.4	—	0.1	0.1	0.1
Other Fees[(d)]	0.1	—	—	—	—	—	—	—
Total Fees	$ 15.6	$ 5.3	$ 5.7	$ 3.5	$ 2.4	$ 0.9	$ 1.5	$ 0.9

(a) Audit Fees are fees billed, or expected to be billed, by Deloitte for professional services for the financial statement audits, audit of the Duke Energy Registrants' financial statements included in the Annual Report on Form 10-K, reviews of financial statements included in Quarterly Reports on Form 10-Q, and services associated with securities filings such as comfort letters and consents.

(b) Audit-Related Fees are fees billed, or expected to be billed, by Deloitte for assurance and related services that are reasonably related to the performance of an audit or review of financial statements, including statutory reporting requirements.

(c) Tax Fees are fees billed by Deloitte for tax return assistance and preparation, tax examination assistance and professional services related to tax planning and tax strategy.

(d) Other Fees are billed by Deloitte for attendance at Deloitte-sponsored conferences and access to Deloitte research tools and subscription services.

To safeguard the continued independence of the independent auditor, the Audit Committee of Duke Energy adopted a policy that all services provided by the independent auditor require preapproval by the Audit Committee. Pursuant to the policy, certain audit services, audit-related services, tax services and other services have been specifically preapproved up to fee limits. In the event the cost of any of these services may exceed the fee limits, the Audit Committee must specifically approve the service. All services performed in 2018 and 2017 by the independent accountant were approved by the Audit Committee pursuant to the preapproval policy.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Consolidated Financial Statements, Supplemental Financial Data and Supplemental Schedules included in Part II of this Annual Report are as follows:

Duke Energy Corporation
- Consolidated Financial Statements
- Consolidated Statements of Operations for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Balance Sheets as of December 31, 2018, and 2017
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements
- Quarterly Financial Data, (unaudited, included in Note 26 to the Consolidated Financial Statements)
- Report of Independent Registered Public Accounting Firm
- All other schedules are omitted because they are not required, or because the required information is included in the Consolidated Financial Statements or Notes.

Duke Energy Carolinas, LLC
- Consolidated Financial Statements
- Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Balance Sheets as of December 31, 2018, and 2017
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements
- Quarterly Financial Data, (unaudited, included in Note 26 to the Consolidated Financial Statements)
- Report of Independent Registered Public Accounting Firm
- All other schedules are omitted because they are not required, or because the required information is included in the Consolidated Financial Statements or Notes.

Progress Energy, Inc.
- Consolidated Financial Statements
- Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Balance Sheets as of December 31, 2018, and 2017
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements
- Quarterly Financial Data, (unaudited, included in Note 26 to the Consolidated Financial Statements)
- Report of Independent Registered Public Accounting Firm
- All other schedules are omitted because they are not required, or because the required information is included in the Consolidated Financial Statements or Notes.

Duke Energy Progress, LLC
- Consolidated Financial Statements
- Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Balance Sheets as of December 31, 2018, and 2017
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements
- Quarterly Financial Data, (unaudited, included in Note 26 to the Consolidated Financial Statements)
- Report of Independent Registered Public Accounting Firm
- All other schedules are omitted because they are not required, or because the required information is included in the Consolidated Financial Statements or Notes.

Duke Energy Florida, LLC
- Consolidated Financial Statements
- Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Balance Sheets as of December 31, 2018, and 2017
- Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
- Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
- Notes to the Consolidated Financial Statements
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Duke Energy Ohio, Inc.

Consolidated Financial Statements
Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Balance Sheets as of December 31, 2018, and 2017
Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
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Duke Energy Indiana, LLC

Consolidated Financial Statements
Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Balance Sheets as of December 31, 2018, and 2017
Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2017 and 2016
Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2017 and 2016
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Piedmont Natural Gas Company, Inc.

Consolidated Financial Statements
Consolidated Statements of Operations and Comprehensive Income for the Years Ended December 31, 2018, and 2017, Two Months Ended December 31, 2016, and the Year Ended October 31, 2016
Consolidated Balance Sheets as of December 31, 2018, and 2017
Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, and 2017, Two Months Ended December 31, 2016, and the Year Ended October 31, 2016
Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, and 2017, Two Months Ended December 31, 2016, and the Year Ended October 31, 2016
Notes to the Consolidated Financial Statements
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EXHIBIT INDEX

Exhibits filed herewithin are designated by an asterisk (*). All exhibits not so designated are incorporated by reference to a prior filing, as indicated. Items constituting management contracts or compensatory plans or arrangements are designated by a double asterisk (**). The Company agrees to furnish upon request to the Commission a copy of any omitted schedules or exhibits upon request on all items designated by a triple asterisk (***).

Exhibit Number		Duke Energy	Duke Energy Carolinas	Progress Energy	Duke Energy Progress	Duke Energy Florida	Duke Energy Ohio	Duke Energy Indiana	Piedmont
2.1	Agreement and Plan of Merger between Duke Energy Corporation, Diamond Acquisition Corporation and Progress Energy, Inc., dated as of January 8, 2011 (incorporated by reference to Exhibit 2.1 to Duke Energy Corporation's Current Report on Form 8-K filed on January 11, 2011, File No. 1-32853).	X							
2.2	Agreement and Plan of Merger between Piedmont Natural Gas Company, Duke Energy Corporation and Forest Subsidiary, Inc. (incorporated by reference to Exhibit 2.1 to Duke Energy Corporation's Current Report on Form 8-K filed on October 26, 2015, File No. 1-32853).	X							
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Duke Energy Corporation's Current Report on Form 8-K filed on May 20, 2014, File No. 1-32853).	X							
3.2	Amended and Restated By-Laws of Duke Energy Corporation (incorporated by reference to Exhibit 3.1 to Duke Energy Corporation's Current Report on Form 8-K filed on January 4, 2016, File No. 1-32853).	X							
3.3	Articles of Organization including Articles of Conversion (incorporated by reference to Exhibit 3.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on April 7, 2006, File No. 1-4928).		X						
3.3.1	Amended Articles of Organization, effective October 1, 2006, (incorporated by reference to Exhibit 3.1 to Duke Energy Carolinas, LLC's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, filed on November 13, 2006, File No. 1-4928).		X						
3.4	Amended Articles of Incorporation of Duke Energy Ohio, Inc. (formerly The Cincinnati Gas & Electric Company), effective October 23, 1996, (incorporated by reference to Exhibit 3(a) to registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 1996, filed on November 13, 1996, File No. 1-1232).						X		
3.4.1	Amended Articles of Incorporation, effective September 19, 2006, (incorporated by reference to Exhibit 3.1 to Duke Energy Ohio, Inc.'s (formerly The Cincinnati Gas & Electric Company) Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, filed on November 17, 2006, File No. 1-1232).						X		
3.5	Certificate of Conversion of Duke Energy Indiana, LLC (incorporated by reference to Exhibit 3.1 to registrant's Current Report on Form 8-K filed on January 4, 2016, File No. 1-3543).							X	

3.5.1	Articles of Entity Conversion of Duke Energy Indiana, LLC (incorporated by reference to Exhibit 3.2 to registrant's Current Report on Form 8-K filed on January 4, 2016, File No. 1-3543).						X
3.5.2	Plan of Entity Conversion of Duke Energy Indiana, LLC (incorporated by reference to Exhibit 3.3 to registrant's Current Report on Form 8-K filed on January 4, 2016, File No. 1-3543).						X
3.5.3	Articles of Organization of Duke Energy Indiana, LLC (incorporated by reference to Exhibit 3.4 to registrant's Current Report on Form 8-K filed on January 4, 2016, File No. 1-3543).						X
3.5.4	Limited Liability Company Operating Agreement of Duke Energy Indiana, LLC (incorporated by reference to Exhibit 3.5 to registrant's Current Report on Form 8-K filed on January 4, 2016, File No. 1-3543).						X
3.6	Limited Liability Company Operating Agreement of Duke Energy Carolinas, LLC (incorporated by reference to Exhibit 3.2 to registrant's Current Report on Form 8-K filed on April 7, 2006, File No. 1-4928).	X					
3.7	Regulations of Duke Energy Ohio, Inc. (formerly The Cincinnati Gas & Electric Company), effective July 23, 2003, (incorporated by reference to Exhibit 3.2 to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, filed on August 13, 2003, File No. 1-1232).					X	
3.8	Articles of Organization including Articles of Conversion for Duke Energy Progress, LLC (incorporated by reference to Exhibit 3.1 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3382).			X			
3.8.1	Plan of Conversion of Duke Energy Progress, Inc. (incorporated by reference to Exhibit 3.2 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3382).			X			
3.8.2	Limited Liability Company Operating Agreement of Duke Energy Progress, LLC (incorporated by reference to Exhibit 3.3 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3382).			X			
3.9	Amended and Restated Articles of Incorporation of Progress Energy, Inc. (formerly CP&L Energy, Inc.), effective June 15, 2000, (incorporated by reference to Exhibit 3(a)(1) to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000, filed on August 14, 2000, File No. 1-3382).		X				
3.9.1	Articles of Amendment to the Amended and Restated Articles of Incorporation of Progress Energy, Inc. (formerly CP&L Energy, Inc.), effective December 4, 2000, (incorporated by reference to Exhibit 3(b)(1) to registrant's Annual Report on Form 10-K for the year ended December 31, 2001, filed on March 28, 2002, File No. 1-3382).		X				
3.9.2	Articles of Amendment to the Amended and Restated Articles of Incorporation of Progress Energy, Inc. (formerly CP&L Energy, Inc.), effective May 10, 2006, (incorporated by reference to Exhibit 3(a) to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, filed on August 9, 2006, File No. 1-15929).		X				

3.9.3	By-Laws of Progress Energy, Inc. (formerly CP&L Energy, Inc.), effective May 10, 2006, (incorporated by reference to Exhibit 3(b) to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, filed on August 9, 2006, File No. 1-15929).			X		
3.10	Articles of Conversion for Duke Energy Florida, LLC (incorporated by reference to Exhibit 3.4 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3274).				X	
3.10.1	Articles of Organization for Duke Energy Florida, LLC (incorporated by reference to Exhibit 3.5 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3274).				X	
3.10.2	Plan of Conversion of Duke Energy Florida, Inc. (incorporated by reference to Exhibit 3.6 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3274).				X	
3.10.3	Limited Liability Company Operating Agreement of Duke Energy Florida, LLC (incorporated by reference to Exhibit 3.7 to registrant's Current Report on Form 8-K filed on August 4, 2015, File No. 1-3274).				X	
3.11	Amended and Restated Articles of Incorporation of Piedmont Natural Gas Company, Inc., dated as of October 3, 2016 (incorporated by reference to Exhibit 3.1 to registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 2016, filed on December 22, 2016, File No. 001-06196).					X
3.11.1	Bylaws of Piedmont Natural Gas Company, Inc., as amended and restated effective October 3, 2016 (incorporated by reference to Exhibit 3.2 to registrant's Current Report on Form 8-K filed on October 3, 2016, File No. 1-06196).					X
4.1	Indenture between Duke Energy Corporation and The Bank of New York Mellon Trust Company, N.A., as Trustee, dated as of June 3, 2008, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on June 16, 2008, File No. 1-32853).	X				
4.1.1	First Supplemental Indenture, dated as of June 16, 2008, (incorporated by reference to Exhibit 4.2 to Duke Energy Corporation's Current Report on Form 8-K filed on June 16, 2008, File No. 1-32853).	X				
4.1.2	Second Supplemental Indenture, dated as of January 26, 2009, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on January 26, 2009, File No. 1-32853).	X				
4.1.3	Third Supplemental Indenture, dated as of August 28, 2009, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on August 28, 2009, File No. 1-32853).	X				
4.1.4	Fourth Supplemental Indenture, dated as of March 25, 2010, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on March 25, 2010, File No. 1-32853).	X				
4.1.5	Fifth Supplemental Indenture, dated as of August 25, 2011, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on August 25, 2011, File No. 1-32853).	X				

4.1.6	Sixth Supplemental Indenture, dated as of November 17, 2011, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on November 17, 2011, File No. 1-32853).	X
4.1.7	Seventh Supplemental Indenture, dated as of August 16, 2012, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on August 16, 2012, File No. 1-32853).	X
4.1.8	Eighth Supplemental Indenture, dated as of January 14, 2013, (incorporated by reference to Exhibit 2 to the Registration Statement of Form 8-A of the Company filed on January 14, 2013, File No. 1-32853).	X
4.1.9	Ninth Supplemental Indenture, dated as of June 13, 2013, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on June 13, 2013, File No. 1-32853).	X
4.1.10	Tenth Supplemental Indenture, dated as of October 11, 2013, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on October 11, 2013, File No. 1-32853).	X
4.1.11	Eleventh Supplemental Indenture, dated as of April 4, 2014, (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Current Report on Form 8-K filed on April 4, 2014, File No. 1-32853).	X
4.1.12	Twelfth Supplemental Indenture, dated as of November 19, 2015, (incorporated by reference to Exhibit 4.2 to Duke Energy Corporation's Current Report on Form 8-K filed on November 19, 2015, File No. 1-32853).	X
4.1.13	Thirteenth Supplemental Indenture, dated as of April 18, 2016, to the indenture dated as of June 3, 2008, between Duke Energy Corporation and The Bank of New York Mellon Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.1 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed on May 5, 2016, File No. 1-32853).	X
4.1.14	Fourteenth Supplemental Indenture, dated as of August 12, 2016, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on August 12, 2016, File No. 1-32853).	X
4.1.15	Fifteenth Supplemental Indenture, dated as of April 11, 2017 (incorporated by reference to Exhibit 4.2 to registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 filed on May 9, 2017, File No. 1-32853).	X
4.1.16	Sixteenth Supplemental Indenture, dated as of June 13, 2017 (incorporated by reference to Exhibit 4.1 to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 filed on August 3, 2017, File No. 1-32853).	X
4.1.17	Seventeenth Supplemental Indenture, dated as of August 10, 2017 (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on August 10, 2017, File No. 1-32853).	X
4.1.18	Eighteenth Supplemental Indenture, dated as of March 29, 2018 (incorporated by reference to Exhibit 4.2 to registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 filed on May 10, 2018, File No. 1-32853).	X

4.1.19	Nineteenth Supplemental Indenture, dated as of May 16, 2018 (incorporated by reference to Exhibit 4.1 to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 filed on August 2, 2018, File No. 1-32853).	X	
4.1.20	Twentieth Supplemental Indenture (incorporated by reference to Exhibit 4.2 to registrant's Registration Statement on Form 8-A filed on September 17, 2018, File No. 1-32853).	X	
4.2	Senior Indenture between Duke Energy Carolinas, LLC and The Bank of New York Mellon Trust Company, N.A., as successor trustee to JPMorgan Chase Bank (formerly known as The Chase Manhattan Bank), dated as of September 1, 1998, (incorporated by reference to Exhibit 4-D-1 to registrant's Post-Effective Amendment No. 2 to Registration Statement on Form S-3 filed on April 7, 1999, File No. 333-14209).		X
4.2.1	Fifteenth Supplemental Indenture, dated as of April 3, 2006, (incorporated by reference to Exhibit 4.4.1 to registrant's Registration Statement on Form S-3 filed on October 3, 2007, File No. 333-146483-03).		X
4.2.2	Sixteenth Supplemental Indenture, dated as of June 5, 2007, (incorporated by reference to Exhibit 4.1 registrant's Current Report on Form 8-K filed on June 6, 2007, File No. 1-4928).		X
4.3	First and Refunding Mortgage from Duke Energy Carolinas, LLC to The Bank of New York Mellon Trust Company, N.A., successor trustee to Guaranty Trust Company of New York, dated as of December 1, 1927, (incorporated by reference to Exhibit 7(a) to registrant's Form S-1, effective October 15, 1947, File No. 2-7224).		X
4.3.1	Instrument of Resignation, Appointment and Acceptance among Duke Energy Carolinas, LLC, JPMorgan Chase Bank, N.A., as Trustee, and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee, dated as of September 24, 2007, (incorporated by reference to Exhibit 4.6.1 to registrant's Registration Statement on Form S-3 filed on October 3, 2007, File No. 333-146483).		X
4.3.2	Ninth Supplemental Indenture, dated as of February 1, 1949, (incorporated by reference to Exhibit 7(j) to registrant's Form S-1 filed on February 3, 1949, File No. 2-7808).		X
4.3.3	Twentieth Supplemental Indenture, dated as of June 15, 1964, (incorporated by reference to Exhibit 4-B-20 to registrant's Form S-1 filed on August 23, 1966, File No. 2-25367).		X
4.3.4	Twenty-third Supplemental Indenture, dated as of February 1, 1968, (incorporated by reference to Exhibit 2-B-26 to registrant's Form S-9 filed on January 21, 1969, File No. 2-31304).		X
4.3.5	Sixtieth Supplemental Indenture, dated as of March 1, 1990, (incorporated by reference to Exhibit 4-B-61 to registrant's Annual Report on Form 10-K for the year ended December 31, 1990, File No.1-4928).		X

4.3.6	Sixty-third Supplemental Indenture, dated as of July 1, 1991, (incorporated by reference to Exhibit 4-B-64 to registrant's Registration Statement on Form S-3 filed on February 13, 1992, File No. 33-45501).	X
4.3.7	Eighty-fourth Supplemental Indenture, dated as of March 20, 2006, (incorporated by reference to Exhibit 4.6.9 to registrant's Registration Statement on Form S-3 filed on October 3, 2007, File No. 333-146483-03).	X
4.3.8	Eighty-fifth Supplemental Indenture, dated as of January 10, 2008, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on January 11, 2008, File No.1-4928).	X
4.3.9	Eighty-seventh Supplemental Indenture, dated as of April 14, 2008, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on April 15, 2008, File No.1-4928).	X
4.3.10	Eighty-eighth Supplemental Indenture, dated as of November 17, 2008, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on November 20, 2008, File No.1-4928).	X
4.3.11	Ninetieth Supplemental Indenture, dated as of November 19, 2009, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on November 19, 2009, File No.1-4928).	X
4.3.12	Ninety-first Supplemental Indenture, dated as of June 7, 2010, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on June 7, 2010, File No.1-4928).	X
4.3.13	Ninety-third Supplemental Indenture, dated as of May 19, 2011, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on May 19, 2011, File No.1-4928).	X
4.3.14	Ninety-fourth Supplemental Indenture, dated as of December 8, 2011, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on December 8, 2011, File No.1-4928).	X
4.3.15	Ninety-fifth Supplemental Indenture, dated as of September 21, 2012, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on September 21, 2012, File No.1-4928).	X
4.3.16	Ninety-sixth Supplemental Indenture, dated as of March 12, 2015, between Duke Energy Carolinas, LLC and The Bank of New York Mellon Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on March 12, 2015, File No. 1-4928).	X
4.3.17	Ninety-seventh Supplemental Indenture, dated as of March 11, 2016, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on March 11, 2016, File No. 1-4928).	X
4.3.18	Ninety-eighth Supplemental Indenture, dated as of November 17, 2016, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC's Current Report on Form 8-K filed on November 17, 2016, File No. 1-4928).	X

4.3.19	Ninety-ninth Supplemental Indenture, dated as of November 14, 2017, (incorporated by reference to Exhibit 4.1 to Duke Energy Carolinas, LLC Current Report on Form 8-K filed on November 14, 2017, File No. 1-4928).	X	
4.3.20	One Hundredth Supplemental Indenture, dated as of March 1, 2018 (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K filed on March 1, 2018, File No. 1-4928).	X	
4.4	Mortgage and Deed of Trust between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and The Bank of New York Mellon (formerly Irving Trust Company) and Frederick G. Herbst (Tina D. Gonzalez, successor), as Trustees, dated as of May 1, 1940.		X
4.4.1	First through Fifth Supplemental Indentures thereto (incorporated by reference to Exhibit 2(b), File No. 2-64189).		X
4.4.2	Sixth Supplemental Indenture dated April 1, 1960 (incorporated by reference to Exhibit 2(b)-5, File No. 2-16210).		X
4.4.3	Seventh Supplemental Indenture dated November 1, 1961 (incorporated by reference to Exhibit 2(b)-6, File No. 2-16210).		X
4.4.4	Eighth Supplemental Indenture dated July 1, 1964 (incorporated by reference to Exhibit 4(b)-8, File No. 2-19118).		X
4.4.5	Ninth Supplemental Indenture dated April 1, 1966 (incorporated by reference to Exhibit 4(b)-2, File No. 2-22439).		X
4.4.6	Tenth Supplemental Indenture dated October 1, 1967 (incorporated by reference to Exhibit 4(b)-2, File No. 2-24624).		X
4.4.7	Eleventh Supplemental Indenture dated October 1, 1968 (incorporated by reference to Exhibit 2(c), File No. 2-27297).		X
4.4.8	Twelfth Supplemental Indenture dated January 1, 1970 (incorporated by reference to Exhibit 2(c), File No. 2-30172).		X
4.4.9	Thirteenth Supplemental Indenture dated August 1, 1970 (incorporated by reference to Exhibit 2(c), File No. 2-35694).		X
4.4.10	Fourteenth Supplemental Indenture dated January 1, 1971 (incorporated by reference to Exhibit 2(c), File No. 2-37505).		X
4.4.11	Fifteenth Supplemental Indenture dated October 1, 1971 (incorporated by reference to Exhibit 2(c), File No. 2-39002).		X
4.4.12	Sixteenth Supplemental Indenture dated May 1, 1972 (incorporated by reference to Exhibit 2(c), File No. 2-41738).		X
4.4.13	Seventeenth Supplemental Indenture dated November 1, 1973 (incorporated by reference to Exhibit 2(c), File No. 2-43439).		X
4.4.14	Eighteenth Supplemental Indenture dated (incorporated by reference to Exhibit 2(c), File No. 2-47751).		X
4.4.15	Nineteenth Supplemental Indenture dated May 1, 1974 (incorporated by reference to Exhibit 2(c), File No. 2-49347).		X

4.4.16	Twentieth Supplemental Indenture dated December 1, 1974 (incorporated by reference to Exhibit 2(c), File No. 2-53113).	X
4.4.17	Twenty-first Supplemental Indenture dated April 15, 1975 (incorporated by reference to Exhibit 2(d), File No. 2-53113).	X
4.4.18	Twenty-second Supplemental Indenture dated October 1, 1977 (incorporated by reference to Exhibit 2(c), File No. 2-59511).	X
4.4.19	Twenty-third Supplemental Indenture dated June 1, 1978 (incorporated by reference to Exhibit 2(c), File No. 2-61611).	X
4.4.20	Twenty-fourth Supplemental Indenture dated May 15, 1979 (incorporated by reference to Exhibit 2(d), File No. 2-64189).	X
4.4.21	Twenty-fifth Supplemental Indenture dated November 1, 1979 (incorporated by reference to Exhibit 2(c), File No. 2-65514).	X
4.4.22	Twenty-sixth Supplemental Indenture dated November 1, 1979 (incorporated by reference to Exhibit 2(c), File No. 2-66851).	X
4.4.23	Twenty-seventh Supplemental Indenture dated April 1, 1980 (incorporated by reference to Exhibit 2 (d), File No. 2-66851).	X
4.4.24	Twenty-eighth Supplemental Indenture dated October 1, 1980 (incorporated by reference to Exhibit 4(b)-1, File No. 2-81299).	X
4.4.25	Twenty-ninth Supplemental Indenture dated October 1, 1980 (incorporated by reference to Exhibit 4(b)-2, File No. 2-81299).	X
4.4.26	Thirtieth Supplemental Indenture dated December 1, 1982 (incorporated by reference to Exhibit 4(b)- 3, File No. 2-81299).	X
4.4.27	Thirty-first Supplemental Indenture dated March 15, 1983 (incorporated by reference to Exhibit 4(c)-1, File No. 2-95505).	X
4.4.28	Thirty-second Supplemental Indenture dated March 15, 1983 (incorporated by reference to Exhibit 4(c)-2, File No. 2-95505).	X
4.4.29	Thirty-third Supplemental Indenture dated December 1, 1983 (incorporated by reference to Exhibit 4(c)-3, File No. 2-95505).	X
4.4.30	Thirty-fourth Supplemental Indenture dated December 15, 1983 (incorporated by reference to Exhibit 4(c)-4, File No. 2-95505).	X
4.4.31	Thirty-fifth Supplemental Indenture dated April 1, 1984 (incorporated by reference to Exhibit 4(c)-5, File No. 2-95505).	X
4.4.32	Thirty-sixth Supplemental Indenture dated June 1, 1984 (incorporated by reference to Exhibit 4(c)-6, File No. 2-95505).	X
4.4.33	Thirty-seventh Supplemental Indenture dated June 1, 1984 (incorporated by reference to Exhibit 4(c)-7, File No. 2-95505).	X
4.4.34	Thirty-eighth Supplemental Indenture dated June 1, 1984 (incorporated by reference to Exhibit 4(c)- 8, File No. 2-95505).	X
4.4.35	Thirty-ninth Supplemental Indenture dated April 1, 1985 (incorporated by reference to Exhibit 4(b), File No. 33-25560).	X

4.4.36	Fortieth Supplemental Indenture dated October 1, 1985 (incorporated by reference to Exhibit 4(c), File No. 33-25560).	X
4.4.37	Forty-first Supplemental Indenture dated March 1, 1986 (incorporated by reference to Exhibit 4(d), File No. 33-25560).	X
4.4.38	Forty-second Supplemental Indenture dated July 1, 1986 (incorporated by reference to Exhibit 4(e), File No. 33-25560).	X
4.4.39	Forty-third Supplemental Indenture dated January 1, 1987 (incorporated by reference to Exhibit 4(f), File No. 33-25560).	X
4.4.40	Forty-fourth Supplemental Indenture dated December 1, 1987 (incorporated by reference to Exhibit 4(g), File No. 33-25560).	X
4.4.41	Forty-fifth supplemental Indenture dated September 1, 1988 (incorporated by reference to Exhibit 4(h), File No. 33-25560).	X
4.4.42	Forty-sixth Supplemental Indenture dated April 1, 1989 (incorporated by reference to Exhibit 4(b), File No. 33-33431).	X
4.4.43	Forty-seventh Supplemental Indenture dated August 1, 1989 (incorporated by reference to Exhibit 4(c), File No. 33-33431).	X
4.4.44	Forty-eighth Supplemental Indenture dated November 15, 1990 (incorporated by reference to Exhibit 4(b), File No. 33-38298).	X
4.4.45	Forty-ninth Supplemental Indenture dated November 15, 1990 (incorporated by reference to Exhibit 4(c), File No. 33-38298).	X
4.4.46	Fiftieth Supplemental Indenture dated February 15, 1991 (incorporated by reference to Exhibit 4(h), File No. 33-42869).	X
4.4.47	Fifty-first Supplemental Indenture dated April 1, 1991 (incorporated by reference to Exhibit 4(i), File No. 33-42869).	X
4.4.48	Fifty-second Supplemental Indenture dated September 15, 1991(incorporated by reference to Exhibit 4(e), File No. 33-48607).	X
4.4.49	Fifty-third Supplemental Indenture dated January 1, 1992 (incorporated by reference to Exhibit 4(f), File No. 33-48607).	X
4.4.50	Fifty-fourth Supplemental Indenture dated April 15, 1992 (incorporated by reference to Exhibit 4 (g), File No. 33-48607).	X
4.4.51	Fifty-fifth Supplemental Indenture dated July 1, 1992 (incorporated by reference to Exhibit 4(e), File No. 33-55060).	X
4.4.52	Fifty-sixth Supplemental Indenture dated October 1, 1992 (incorporated by reference to Exhibit 4(f), File No. 33-55060).	X
4.4.53	Fifty-seventh Supplemental Indenture dated February 1, 1993 (incorporated by reference to Exhibit 4(e), File No. 33-60014).	X
4.4.54	Fifty-eighth Supplemental Indenture dated March 1, 1993 (incorporated by reference to Exhibit 4(f), File No. 33-60014).	X
4.4.55	Fifty-ninth Supplemental Indenture dated July 1, 1993 (incorporated by reference to Exhibit 4(a) to Post-Effective Amendment No. 1, File No. 33-38349).	X

4.4.56	Sixtieth Supplemental Indenture dated July 1, 1993 (incorporated by reference to Exhibit 4(b) to Post-Effective Amendment No. 1, File No. 33-38349).	X
4.4.57	Sixty-first Supplemental Indenture dated August 15, 1993 (incorporated by reference to Exhibit 4(e), File No. 33-50597).	X
4.4.58	Sixty-second Supplemental Indenture dated January 15, 1994 (incorporated by reference to Exhibit 4 to Duke Energy Progress' Current Report on Form 8-K dated January 19, 1994, File No. 1-3382).	X
4.4.59	Sixty-third Supplemental Indenture dated May 1, 1994 (incorporated by reference to Exhibit 4(f) for Duke Energy Progress' Form S-3, File No. 033-57835).	X
4.4.60	Sixty-fourth Supplemental Indenture dated August 15, 1997 (incorporated by reference to Exhibit to Duke Energy Progress' Current Report on Form 8-K dated August 26, 1997, File No. 1-3382).	X
4.4.61	Sixty-fifth Supplemental Indenture dated April 1, 1998 (incorporated by reference to Exhibit 4(b) for Duke Energy Progress' Registration Statement on Form S-3 filed December 18, 1998, File No. 333-69237).	X
4.4.62	Sixty-sixth Supplemental Indenture dated March 1, 1999 (incorporated by reference to Exhibit 4(c) to Duke Energy Progress' Current Report on Form 8-K dated March 19, 1999, File No. 1-3382).	X
4.4.63	Form of Carolina Power & Light Company First Mortgage Bond, 6.80% Series Due August 15, 2007 (incorporated by reference to Exhibit 4 to Duke Energy Progress' Form 10-Q for the period ended September 30, 1998, File No. 1-3382).	X
4.4.64	Sixty-eighth Supplemental Indenture dated April 1, 2000 (incorporated by reference to Exhibit No. 4(b) to Duke Energy Progress' Current Report on Form 8-K dated April 20, 2000, File No. 1-3382).	X
4.4.65	Sixty-ninth Supplemental Indenture dated June 1, 2000 (incorporated by reference to Exhibit No. 4b(2) to Duke Energy Progress' Annual Report on Form 10-K dated March 29, 2001, File No. 1-3382).	X
4.4.66	Seventieth Supplemental Indenture dated July 1, 2000 (incorporated by reference to Exhibit 4b(3) to Duke Energy Progress' Annual Report on Form 10-K dated March 29, 2001, File No. 1-3382).	X
4.4.67	Seventy-first Supplemental Indenture dated February 1, 2002 (incorporated by reference to Exhibit 4b(2) to Duke Energy Progress' Annual Report on Form 10-K dated March 28, 2002, File No. 1-3382 and 1-15929).	X
4.4.68	Seventy-second Supplemental Indenture, dated as of September 1, 2003, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on September 12, 2003, File No. 1-3382).	X

4.4.69	Seventy-third Supplemental Indenture, dated as of March 1, 2005, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on March 22, 2005, File No. 1-3382).	X
4.4.70	Seventy-fourth Supplemental Indenture, dated as of November 1, 2005, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on November 30, 2005, File No. 1-3382).	X
4.4.71	Seventy-fifth Supplemental Indenture, dated as of March 1, 2008, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on March 13, 2008, File No. 1-3382).	X
4.4.72	Seventy-sixth Supplemental Indenture, dated as of January 1, 2009, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on January 15, 2009, File No. 1-3382).	X
4.4.73	Seventy-seventh Supplemental Indenture, dated as of June 18, 2009, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on June 23, 2009, File No. 1-3382).	X
4.4.74	Seventy-eighth Supplemental Indenture, dated as of September 1, 2011, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on September 15, 2011, File No. 1-3382).	X
4.4.75	Seventy-ninth Supplemental Indenture, dated as of May 1, 2012, (incorporated by reference to Exhibit 4 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on May 18, 2012, File No. 1-3382).	X
4.4.76	Eightieth Supplemental Indenture, dated as of March 1, 2013, (incorporated by reference to Exhibit 4.1 to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Current Report on Form 8-K filed on March 12, 2013, File No. 1-3382).	X
4.4.77	Eighty-second Supplemental Indenture, dated as of March 1, 2014, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) and Tina D. Gonzalez (successor to Frederick G. Herbst) and forms of global notes (incorporated by reference to Exhibit 4.1 to Duke Energy Progress, Inc.'s Current Report on Form 8-K filed on March 6, 2014, File No. 1-3382).	X

4.4.78	Eighty-third Supplemental Indenture, dated as of November 1, 2014, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) and Tina D. Gonzalez (successor to Frederick G. Herbst) and forms of global notes (incorporated by reference to Exhibit 4.1 to Duke Energy Progress, Inc.'s Current Report on Form 8-K filed on November 20, 2014, File No. 1-3382).	X		
4.4.79	Eighty-fifth Supplemental Indenture, dated as of August 1, 2015, (incorporated by reference to Exhibit 4.1 to Duke Energy Progress, LLC's Current Report on Form 8-K filed on August 13, 2015, File No. 1-3382).	X		
4.4.80	Eighty-sixth Supplemental Indenture, dated as of September 1, 2016, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on September 16, 2016, File No. 1-15929).	X		
4.4.81	Eighty-seventh Supplemental Indenture, dated as of September 1, 2017 (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on September 8, 2017, File No. 1-3382).	X		
4.5	Indenture (for Debt Securities) between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and The Bank of New York Mellon (successor in interest to The Chase Manhattan Bank), as Trustee (incorporated by reference to Exhibit 4(a) to registrant's Current Report on Form 8-K filed on November 5, 1999, File No. 1-3382).	X		
4.6	Indenture (for [Subordinated] Debt Securities) (open ended) (incorporated by reference to Exhibit 4(a)(2) to Duke Energy Progress, Inc.'s (formerly Carolina Power & Light Company (d/b/a Progress Energy Carolinas, Inc.)) Registration Statement on Form S-3 filed on November 18, 2008, File No. 333-155418).	X		
4.7	Indenture (for First Mortgage Bonds) between Duke Energy Florida, Inc. (formerly Florida Power Corporation) and The Bank of New York Mellon (as successor to Guaranty Trust Company of New York and The Florida National Bank of Jacksonville), as Trustee, dated as of January 1, 1944, (incorporated by reference to Exhibit B-18 to registrant's Form A-2, File No. 2-5293).		X	
4.7.1	Seventh Supplemental Indenture (incorporated by reference to Exhibit 4(b) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation) Registration Statement on Form S-3 filed on September 27, 1991, File No. 33-16788).		X	
4.7.2	Eighth Supplemental Indenture (incorporated by reference to Exhibit 4(c) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation) Registration Statement on Form S-3 filed on September 27, 1991, File No. 33-16788).		X	
4.7.3	Sixteenth Supplemental Indenture (incorporated by reference to Exhibit 4(d) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation) Registration Statement on Form S-3 filed on September 27, 1991, File No. 33-16788).		X	

4.7.4	Twenty-ninth Supplemental Indenture (incorporated by reference to Exhibit 4(c) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation) Registration Statement on Form S-3 filed on September 17, 1982, File No. 2-79832).	X
4.7.5	Thirty-eighth Supplemental Indenture, dated as of July 25, 1994, (incorporated by reference to exhibit 4(f) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation) Registration Statement on Form S-3 filed on August 29, 1994, File No. 33-55273).	X
4.7.6	Forty-first Supplemental Indenture, dated as of February 1, 2003, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Duke Energy Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on February 21, 2003, File No. 1-3274).	X
4.7.7	Forty-second Supplemental Indenture, dated as of April 1, 2003, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, filed on August 11, 2003, File No. 1-3274).	X
4.7.8	Forty-third Supplemental Indenture, dated as of November 1, 2003, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on November 21, 2003, File No. 1-3274).	X
4.7.9	Forty-fourth Supplemental Indenture, dated as of August 1, 2004, (incorporated by reference to Exhibit 4(m) to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Annual Report on Form 10-K for the year ended December 31, 2004, filed on March 16, 2005, File No. 1-3274).	X
4.7.10	Forty-sixth Supplemental Indenture, dated as of September 1, 2007, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on September 19, 2007, File No. 1-3274).	X
4.7.11	Forty-seventh Supplemental Indenture, dated as of December 1, 2007, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on December 13, 2007, File No. 1-3274).	X
4.7.12	Forty-eighth Supplemental Indenture, dated as of June 1, 2008, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on June 18, 2008, File No. 1-3274).	X
4.7.13	Forty-ninth Supplemental Indenture, dated as of March 1, 2010, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on March 25, 2010, File No. 1-3274).	X

4.7.14	Fiftieth Supplemental Indenture, dated as of August 11, 2011, (incorporated by reference to Exhibit 4 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on August 18, 2011, File No. 1-3274).	X	
4.7.15	Fifty-first Supplemental Indenture, dated as of November 1, 2012, (incorporated by reference to Exhibit 4.1 to Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Current Report on Form 8-K filed on November 20, 2012, File No. 1-3274).	X	
4.7.16	Fifty-third Supplemental Indenture, dated as of September 1, 2016, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on September 9, 2016, File No. 1-03274).	X	
4.7.17	Fifty-fifth Supplemental Indenture, dated as of June 1, 2018, (incorporated by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K filed on June 21, 2018, File No. 1-3274).	X	
4.8	Indenture (for Debt Securities) between Duke Energy Florida, Inc. (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) and The Bank of New York Mellon Trust Company, National Association (successor in interest to J.P. Morgan Trust Company, National Association), as Trustee, dated as of December 7, 2005, (incorporated by reference to Exhibit 4(a) to registrant's Current Report on Form 8-K filed on December 13, 2005, File No. 1-3274).	X	
4.8.1	First Supplemental Indenture, dated as of December 12, 2017, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on December 12, 2017, File No. 1-03274).	X	
4.9	Indenture (for [Subordinated] Debt Securities) (open ended) (incorporated by reference to Exhibit 4(a)(2) Duke Energy Florida, Inc.'s (formerly Florida Power Corporation (d/b/a Progress Energy Florida, Inc.)) Registration Statement on Form S-3 filed on November 18, 2008, File No. 333-155418).	X	
4.10	Original Indenture (Unsecured Debt Securities) between Duke Energy Ohio, Inc. (formerly The Cincinnati Gas & Electric Company) and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee, dated as of May 15, 1995, (incorporated by reference to Exhibit 3 to registrant's Form 8-A filed on July 27, 1995, File No. 1-1232).		X
4.10.1	First Supplemental Indenture, dated as of June 1, 1995, (incorporated by reference to Exhibit 4 B to Duke Energy Ohio, Inc.'s (formerly The Cincinnati Gas & Electric Company) Quarterly Report on Form 10-Q for the quarter ended June 30, 1995, filed on August 11, 1995, File No. 1-1232).		X
4.10.2	Seventh Supplemental Indenture, dated as of June 15, 2003, (incorporated by reference to Exhibit 4.1 to Duke Energy Ohio, Inc.'s (formerly The Cincinnati Gas & Electric Company) Quarterly Report on Form 10-Q for the quarter ended June 30, 2003, filed on August 13, 2003, File No. 1-1232).		X

4.11	Original Indenture (First Mortgage Bonds) between Duke Energy Ohio, Inc. (formerly The Cincinnati Gas & Electric Company) and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee, dated as of August 1, 1936, (incorporated by reference to an exhibit to registrant's Registration Statement No. 2-2374).	X	
4.11.1	Fortieth Supplemental Indenture, dated as of March 23, 2009, (incorporated by reference to Exhibit 4.1 to Duke Energy Ohio, Inc.'s (formerly The Cincinnati Gas & Electric Company) Current Report on Form 8-K filed on March 24, 2009, File No. 1-1232).	X	
4.11.2	Forty-second Supplemental Indenture, dated as of September 6, 2013, (incorporated by reference to Exhibit 4.1 to Duke Energy Ohio, Inc.'s (formerly The Cincinnati Gas & Electric Company) Current Report on Form 8-K filed on September 6, 2013, File No. 1-1232).	X	
4.11.3	Forty-fourth Supplemental Indenture, dated as of June 23, 2016, (incorporated by reference to Exhibit 4.1 registrant's Current Report on Form 8-K filed on June 23, 2016, File No. 1-1232).	X	
4.11.4	Forty-fifth Supplemental Indenture, dated as of March 27, 2017 (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on March 27,2017, File No. 1-01232).	X	
4.11.5	Forty-sixth Supplemental Indenture, dated as of January 8, 2019, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on January 8, 2019, File No. 1-1232).	X	
4.12	Indenture between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and The Bank of New York Mellon Trust Company, N.A., as Successor Trustee, dated as of November 15, 1996, (incorporated by reference to Exhibit 4(v) to the Cinergy Corp. Form 10-K for the year ended December 31, 1996, filed on March 27, 1997, File No. 1-11377).		X
4.12.1	Third Supplemental Indenture, dated as of March 15, 1998, (incorporated by reference to Exhibit 4-w to Cinergy Corp.'s Annual Report on Form 10-K for the year ended December 31, 1997, filed on March 27, 1998, File No. 1-11377).		X
4.12.2	Eighth Supplemental Indenture, dated as of September 23, 2003, (incorporated by reference to Exhibit 4.2 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Quarterly Report on Form 10-Q for the quarter ended September 30, 2003, filed on November 13, 2003, File No. 1-3543).		X
4.12.3	Ninth Supplemental Indenture, dated as of October 21, 2005, (incorporated by reference to Exhibit 4.7.3 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 29, 2010, File No. 333-169633).		X

4.12.4	Tenth Supplemental Indenture, dated as of June 9, 2006, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report on Form 8-K filed on June 15, 2006, File No. 1-3543).	X
4.13	Original Indenture (First Mortgage Bonds) between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and Deutsche Bank National Trust Company, as Successor Trustee, dated as of September 1, 1939, (filed as an exhibit in File No. 70-258).	X
4.13.1	Tenth Supplemental Indenture, dated as of July 1, 1952, (filed as an exhibit in File No. 2-9687).	X
4.13.2	Twenty-third Supplemental Indenture, dated as of January 1, 1977, (filed as an exhibit in File No. 2-57828).	X
4.13.3	Twenty-fifth Supplemental Indenture, dated as of September 1, 1978, (filed as an exhibit in File No. 2-62543).	X
4.13.4	Twenty-sixth Supplemental Indenture, dated as of September 1, 1978, (filed as an exhibit in File No. 2-62543).	X
4.13.5	Thirtieth Supplemental Indenture, dated as of August 1, 1980, (filed as an exhibit in File No. 2-68562).	X
4.13.6	Thirty-fifth Supplemental Indenture, dated as of March 30, 1984, (filed as an exhibit to registrant's Annual Report on Form 10-K for the year ended December 31, 1984, File No. 1-3543).	X
4.13.7	Forty-sixth Supplemental Indenture, dated as of June 1, 1990, (filed as an exhibit to registrant's Annual Report on Form 10-K for the year ended December 31, 1991, File No. 1-3543).	X
4.13.8	Forty-seventh Supplemental Indenture, dated as of July 15, 1991, (filed as an exhibit to registrant's Annual Report on Form 10-K for the year ended December 31, 1991, File No. 1-3543).	X
4.13.9	Forty-eighth Supplemental Indenture, dated as of July 15, 1992, (filed as an exhibit to registrant's Annual Report on Form 10-K for the year ended December 31, 1992, File No. 1-3543).	X
4.13.10	Fifty-second Supplemental Indenture, dated as of April 30, 1999, (incorporated by reference to Exhibit 4 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Quarterly Report on Form 10-Q for the quarter ended March 31, 1999, filed on May 13, 1999, File No. 1-3543).	X
4.13.11	Fifty-seventh Supplemental Indenture, dated as of August 21, 2008, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report Form 8-K filed on August 21, 2008, File No. 1-3543).	X
4.13.12	Fifty-eighth Supplemental Indenture, dated as of December 19, 2008, (incorporated by reference to Exhibit 4.8.12 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 29, 2010, File No. 333-169633-02).	X

4.13.13	Fifty-ninth Supplemental Indenture, dated as of March 23, 2009, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report on Form 8-K filed on March 24, 2009, File No. 1-3543).	X
4.13.14	Sixtieth Supplemental Indenture, dated as of June 1, 2009, (incorporated by reference to Exhibit 4.8.14 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 29, 2010, File No. 333-169633-02).	X
4.13.15	Sixty-first Supplemental Indenture, dated as of October 1, 2009, (incorporated by reference to Exhibit 4.8.15 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 29, 2010, File No. 333-169633-02).	X
4.13.16	Sixty-second Supplemental Indenture, dated as of July 9, 2010, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report on Form 8-K filed on July 9, 2010, File No. 1-3543).	X
4.13.17	Sixty-third Supplemental Indenture, dated as of September 23, 2010, (incorporated by reference to Exhibit 4.8.17 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 29, 2010, File No. 333-169633-02).	X
4.13.18	Sixty-fourth Supplemental Indenture, dated as of December 1, 2011, (incorporated by reference to Exhibit 4(d)(2)(xviii) to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Registration Statement on Form S-3 filed on September 30, 2013, File No. 333-191462-03).	X
4.13.19	Sixty-fifth Supplemental Indenture, dated as of March 15, 2012, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report on Form 8-K filed on March 15, 2012, File No. 1-3543).	X
4.13.20	Sixty-sixth Supplemental Indenture, dated as of July 11, 2013, (incorporated by reference to Exhibit 4.1 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Current Report on Form 8-K filed on July 11, 2013, File No. 1-3543).	X
4.13.21	Sixty-seventh Supplemental Indenture, dated as of January 1, 2016, between Duke Energy Indiana, Inc. and Deutsche Bank National Trust Company, as Trustee, supplementing and amending the Indenture of Mortgage or Deed of Trust, dated September 1, 1939, between Duke Energy Indiana, Inc. and Deutsche Bank National Trust Company, as Trustee (incorporated by reference to Exhibit 4.2 to Duke Energy Indiana, LLC's (formerly PSI Energy, Inc.) Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed on May 5, 2016, File No. 1-3543).	X
4.13.22	Sixty-eighth Supplemental Indenture, dated as of May 12, 2016, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on May 12, 2016, File No. 1-3543).	X

4.14	Repayment Agreement between Duke Energy Ohio, Inc. (formerly The Cincinnati Gas & Electric Company) and The Dayton Power and Light Company, dated as of December 23, 1992, (filed with registrant's Annual Report on Form 10-K for the year ended December 31, 1992, File No. 1-1232).			X		
4.15	Unsecured Promissory Note between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and the Rural Utilities Service, dated as of October 14, 1998, (incorporated by reference to Exhibit 4 to registrant's Annual Report on Form 10-K for the year ended December 31, 1998, filed on March 8, 1999, File No. 1-3543).				X	
4.16	6.302% Subordinated Note between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and Cinergy Corp., dated as of February 5, 2003, (incorporated by reference to Exhibit 4(yyy) to registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, filed on May 12,2003, File No. 1-3543).				X	
4.17	6.403% Subordinated Note between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and Cinergy Corp., dated as of February 5, 2003, (incorporated by reference to Exhibit 4(zzz) to registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2003, filed on May 12, 2003, File No. 1-3543).				X	
4.18	Contingent Value Obligation Agreement between Progress Energy, Inc. (formerly CP&L Energy, Inc.) and The Chase Manhattan Bank, as Trustee, dated as of November 30, 2000, (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on December 1, 2000, File No. 1-3382).	X				
4.19	Form of 3.47% Series A Senior Notes due July 16, 2027 (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on March 29, 2012, File No. 1-06196).					X
4.20	Form of 3.57% Series B Senior Notes due July 16, 2027 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on March 29, 2012, File No. 1-06196).					X
4.21	Form of 4.65% Senior Notes due 2043 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on August 1, 2013, File No. 1-06196).					X
4.22	Form of 4.10% Senior Notes due 2034 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on September 18, 2014, File No. 1-06196).					X
4.23	Form of 3.60% Senior Notes due 2025 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on September 14, 2015, File No. 1-06196).					X
4.24	Form of 3.64% Senior Notes due 2046 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on July 28, 2016, File No. 1-06196).					X

4.25	Form of 4.24% Series B Senior Notes due June 6, 2021 (incorporated by reference to Exhibit 4.2 to registrant's Current Report on Form 8-K filed on May 12, 2011, File No. 1-06196).	X
4.26	Indenture, dated as of April 1, 1993, between Piedmont and The Bank of New York Mellon Trust Company, N.A. (as successor to Citibank, N.A.), Trustee (incorporated by reference to Exhibit 4.1 to registrant's Registration Statement on Form S-3 filed on May 16, 1995, File No. 33-59369).	X
4.26.1	Second Supplemental Indenture, dated as of June 15, 2003, between Piedmont and Citibank, N.A., Trustee (incorporated by reference to Exhibit 4.3 to registrant's Registration Statement on Form S-3 filed on June 19, 2003, File No. 333-106268).	X
4.26.2	Fourth Supplemental Indenture, dated as of May 6, 2011, between Piedmont Natural Gas Company, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to Exhibit 4.2 to registrant's Registration Statement on Form S-3-ASR filed on July 7, 2011, File No. 333-175386).	X
4.26.3	Fifth Supplemental Indenture, dated August 1, 2013, between the Company and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on August 1, 2013, File No. 1-06196).	X
4.26.4	Sixth Supplemental Indenture, dated September 18, 2014, between the Company and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on September 18, 2014, File No. 1-06196).	X
4.26.5	Seventh Supplemental Indenture, dated September 14, 2015, between the Company and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on September 14, 2015, File No. 1-06196).	X
4.26.6	Eighth Supplemental Indenture, dated July 28, 2016, between the Company and The Bank of New York Mellon Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to registrant's Current Report on Form 8-K filed on July 28, 2016, File No. 1-06196).	X
4.27	Medium-Term Note, Series A, dated as of October 6, 1993 (incorporated by reference to Exhibit 4.8 to registrant's Annual Report on Form 10-K for the year ended October 31, 1993, File No. 1-06196).	X
4.28	Medium-Term Note, Series A, dated as of September 19, 1994 (incorporated by reference to Exhibit 4.9 to registrant's Annual Report on Form 10-K for the year ended October 31, 1994, File No. 1-06196).	X
4.29	Form of 6% Medium-Term Note, Series E, dated as of December 19, 2003 (incorporated by reference to Exhibit 99.2 to registrant's Current Report on Form 8-K filed on December 23, 2003, File No. 1-06196).	X
4.30	Form of Master Global Note (incorporated by reference to Exhibit 4.4 to registrant's Registration Statement on Form S-3 filed on April 30, 1997, File No. 333-26161).	X

4.31	Pricing Supplement of Medium-Term Notes, Series B, dated October 3, 1995 (incorporated by reference to Exhibit 4.10 to registrant's Annual Report on Form 10-K for the year ended October 31, 1995, File No. 1-06196).			X
4.32	Pricing Supplement of Medium-Term Notes, Series B, dated October 4, 1996 (incorporated by reference to Exhibit 4.11 to registrant's Annual Report on Form 10-K for the year ended October 31, 1996, File No. 1-06196).			X
4.33	Pricing Supplement of Medium-Term Notes, Series C, dated September 15, 1999 (incorporated by reference to Rule 424(b)(3) Pricing Supplement to Form S-3 Registration Statement Nos. 33-59369 and 333-26161).			X
4.34	Agreement of Resignation, Appointment and Acceptance dated as of March 29, 2007, by and among Piedmont Natural Gas Company, Inc., Citibank, N.A., and The Bank of New York Trust Company, N.A. (incorporated by reference to Exhibit 4.1 to registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 2007, filed on June 8, 2007, File No. 1-06196).			X
10.1	Agreements with Piedmont Electric Membership Corporation, Rutherford Electric Membership Corporation and Blue Ridge Electric Membership Corporation (incorporated by reference to Exhibit 10.15 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006, filed on August 9, 2006, File No. 1-32853).	X		
10.2	Asset Purchase Agreement between Saluda River Electric Cooperative, Inc., as Seller, and Duke Energy Carolinas, LLC, as Purchaser, dated as of December 20, 2006, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on December 27, 2006, File No. 1-4928).	X		
10.3	Settlement between Duke Energy Corporation, Duke Energy Carolinas, LLC and the U.S. Department of Justice resolving Duke Energy's used nuclear fuel litigation against the U.S. Department of Energy, dated as of March 6, 2007, (incorporated by reference to Item 8.01 to registrant's Current Report on Form 8-K filed on March 12, 2007, File No. 1-4928).	X		
10.4	Letter Agreement between Georgia Natural Gas Company and Piedmont Energy Company dated February 12, 2016 (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on February 18, 2016, File No. 1-06196).			X
10.5	Assignment of Membership Interests dated as of October 3, 2016 between Piedmont ACP Company, LLC and Dominion Atlantic Coast Pipeline, LLC, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on October 7, 2016, File No. 1-06196).			X
10.6	Agreements between Piedmont Electric Membership Corporation, Rutherford Electric Membership Corporation and Blue Ridge Electric Membership Corporation (incorporated by reference to Exhibit 10.15 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006 filed on August 9, 2006, File No. 1-32853).	X		

10.7	Conveyance and Assignment Agreement, dated as of October 3, 2016, by and between Piedmont Energy Company and Georgia Natural Gas Company (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on October 3, 2016, File No. 1-06196).				X
10.8	Engineering, Procurement and Construction Management Agreement between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and Bechtel Power Corporation, dated as of December 15, 2008, (incorporated by reference to Exhibit 10.16 to registrant's Annual Report on Form 10-K for the year ended December 31, 2008, filed on March 13, 2009, File No. 1-3543). (Portions of the exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.)			X	
10.9	Formation and Sale Agreement between Duke Ventures, LLC, Crescent Resources, LLC, Morgan Stanley Real Estate Fund V U.S. L.P., Morgan Stanley Real Estate Fund V Special U.S., L.P., Morgan Stanley Real Estate Investors V U.S., L.P., MSP Real Estate Fund V, L.P., and Morgan Stanley Strategic Investments, Inc., dated as of September 7, 2006, (incorporated by reference to Exhibit 10.3 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006, filed on November 9, 2006, File No. 1-32853).	X			
10.10	Operating Agreement of Pioneer Transmission, LLC (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008, filed on November 7, 2008, File No. 1-32853).	X			
10.11**	Amended and Restated Duke Energy Corporation Directors' Saving Plan, dated as of January 1, 2014, (incorporated by reference to Exhibit 10.32 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2013, filed on February 28, 2014, File No. 1-32853).	X			
10.12	Engineering, Procurement and Construction Management Agreement between Duke Energy Indiana, LLC (formerly PSI Energy, Inc.) and Bechtel Power Corporation, dated as of December 15, 2008, (incorporated by reference to Item 1.01 to registrant's Current Report on Form 8-K filed on December 19, 2008, File Nos. 1-32853 and 1-3543). (Portions of the exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.)	X		X	
10.13**	Duke Energy Corporation Executive Severance Plan (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on January 13, 2011, File No. 1-32853).	X			

10.14	$6,000,000,000 Five-Year Credit Agreement between Duke Energy Corporation, Duke Energy Carolinas, LLC, Duke Energy Ohio, Inc., Duke Energy Indiana, LLC, Duke Energy Kentucky, Inc., Carolina Power and Light Company d/b/a Duke Energy Progress, Inc. and Florida Power Corporation, d/b/a Duke Energy Florida, Inc., as Borrowers, the lenders listed therein, Wells Fargo Bank, National Association, as Administrative Agent, Bank of America, N.A. and The Royal Bank of Scotland plc, as Co-Syndication Agents and Bank of China, New York Branch, Barclays Bank PLC, Citibank, N.A., Credit Suisse AG, Cayman Islands Branch, Industrial and Commercial Bank of China Limited, New York Branch, JPMorgan Chase Bank, N.A. and UBS Securities LLC, as Co-Documentation Agents, dated as of November 18, 2011, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on November 25, 2011, File Nos. 1-32853, 1-4928, 1-1232 and 1-3543).	X	X			X	X	
10.14.1	Amendment No. 1 and Consent between Duke Energy Corporation, Duke Energy Carolinas, LLC, Duke Energy Ohio, Inc., Duke Energy Indiana, LLC, Duke Energy Kentucky, Inc., Duke Energy Progress, Inc., Duke Energy Florida, Inc., and Wells Fargo Bank, National Association, dated as of December 18, 2013, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on December 23, 2013, File Nos. 1-32853, 1-4928, 1-3382, 1-3274, 1-1232 and 1-3543).	X	X	X	X	X	X	
10.14.2	Amendment No. 2 and Consent between Duke Energy Corporation, Duke Energy Carolinas, LLC, Duke Energy Ohio, Inc., Duke Energy Indiana, LLC, Duke Energy Kentucky, Inc., Duke Energy Progress, Inc., and Duke Energy Florida, Inc., the Lenders party hereto, the issuing Lenders party hereto, Wells Fargo Bank, National Association, as Administrative Agent and Swingline Lender, dated as of January 30, 2015, (incorporated by reference to Exhibit 10.1 of registrant's Current Report on Form 8-K filed on February 5, 2015, File Nos. 1-32853, 1-4928, 1-1232, 1-3543, 1-3382 and 1-3274).	X	X	X	X	X	X	
10.14.3	Amendment No. 3 and Consent, dated as of March 16, 2017, among the registrants, the Lenders party thereto, the issuing Lenders party thereto, and Wells Fargo Bank, National Association, as Administrative Agent and Swingline Lender (incorporated by reference to Exhibit 10.1 to registrants' Current Report on Form 8-K filed on March 17, 2017, File Nos. 1-32853, 1-04928, 1-03382, 1-03274, 1-01232, 1-03543, 1-06196).	X	X	X	X	X	X	X
10.15**	Duke Energy Corporation 2010 Long-Term Incentive Plan (incorporated by reference to Appendix A to registrant's Form DEF 14A filed on March 22, 2010, File No. 1-32853).	X						
10.15.1**	Amendment to Duke Energy Corporation 2010 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.3 to registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, filed on August 8, 2012, File No. 1-32853).	X						
10.16**	Duke Energy Corporation 2015 Long-Term Incentive Plan (incorporated by reference to Appendix C to registrant's DEF 14A filed on March 26, 2015, File No. 1-32853).	X						

*10.16.1**	Amendment to Duke Energy Corporation 2015 Long-Term Incentive Plan.	X
10.17**	Form of Performance Award Agreement of Duke Energy Corporation under the Duke Energy Corporation 2015 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on February 18, 2016, File No. 1-32853).	X
10.18**	Form of Restricted Stock Unit Award Agreement of Duke Energy Corporation under the Duke Energy Corporation 2015 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to registrant's Current Report on Form 8-K filed on February 18, 2016, File No. 1-32853).	X
10.19**	Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.4 to registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 filed on May 9, 2017, File No. 1-32853).	X
10.20**	Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.24 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2017 filed on February 21, 2018, File No. 1-32853).	X
10.21**	Performance-Based Retention Award Agreement (incorporated by reference to Exhibit 10.2 to registrant's Current Report on Form 10-Q for the quarter ended March 31, 2017 filed on May 9, 2017, File No. 1-32853).	X
10.22**	Performance Award Agreement (incorporated by reference to Exhibit 10.3 to registrant's Current Report on Form 10-Q for the quarter ended March 31, 2017 filed on May 9, 2017, File No. 1-32853).	X
10.23**	Performance Award Agreement (incorporated by reference to Exhibit 10.27 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2017 filed on February 21, 2018, File No. 1-32853).	X
10.24	Settlement Agreement between Duke Energy Corporation, the North Carolina Utilities Commission Staff and the North Carolina Public Staff, dated as of November 28, 2012, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on November 29, 2012, File No. 1-32853).	X
10.25	Settlement Agreement between Duke Energy Corporation and the North Carolina Attorney General, dated as of December 3, 2012, (incorporated by reference Item 7.01 to registrant's Current Report on Form 8-K filed on December 3, 2012, File No. 1-32853).	X
10.26**	Form of Change-in-Control Agreement (incorporated by reference to Exhibit 10.58 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2012, filed on March 1, 2013, File No. 1-32853).	X
10.27**	Amended and Restated Duke Energy Corporation Executive Cash Balance Plan, dated as of January 1, 2014, (incorporated by reference to Exhibit 10.52 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2013, filed on February 28, 2014, File No. 1-32852).	X

10.28	Purchase, Construction and Ownership Agreement, dated as of July 30, 1981, between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and North Carolina Municipal Power Agency Number 3 and Exhibits, together with resolution, dated as of December 16, 1981, changing name to North Carolina Eastern Municipal Power Agency, amending letter, dated as of February 18, 1982, and amendment, dated as of February 24, 1982, (incorporated by reference to Exhibit 10(a) to registrant's File No. 33-25560).		X
10.29	Operating and Fuel Agreement, dated as of July 30, 1981, between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and North Carolina Municipal Power Agency Number 3 and Exhibits, together with resolution, dated as of December 16, 1981, changing name to North Carolina Eastern Municipal Power Agency, amending letters, dated as of August 21, 1981, and December 15, 1981, and amendment, dated as of February 24, 1982, (incorporated by reference to Exhibit 10(b) to registrant's File No. 33-25560).		X
10.30	Power Coordination Agreement, dated as of July 30, 1981, between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and North Carolina Municipal Power Agency Number 3 and Exhibits, together with resolution, dated as of December 16, 1981, changing name to North Carolina Eastern Municipal Power Agency and amending letter, dated as of January 29, 1982, (incorporated by reference to Exhibit 10(c) to registrant's File No. 33-25560).		X
10.31	Amendment, dated as of December 16, 1982, to Purchase, Construction and Ownership Agreement, dated as of July 30, 1981, between Duke Energy Progress, Inc. (formerly Carolina Power & Light Company) and North Carolina Eastern Municipal Power Agency (incorporated by reference to Exhibit 10(d) to registrant's File No. 33-25560).		X
10.32**	Progress Energy, Inc. 2007 Equity Incentive Plan (incorporated by reference to Exhibit C to registrant's Form DEF 14A filed on March 30, 2007, File No. 1-15929).	X	

10.33	Precedent and Related Agreements between Duke Energy Florida, Inc. (formerly Florida Power Corporation d/b/a Progress Energy Florida, Inc. ("PEF")), Southern Natural Gas Company, Florida Gas Transmission Company ("FGT"), and BG LNG Services, LLC ("BG"), including: a) Precedent Agreement between Southern Natural Gas Company and PEF, dated as of December 2, 2004; b) Gas Sale and Purchase Contract between BG and PEF, dated as of December 1, 2004; c) Interim Firm Transportation Service Agreement by and between FGT and PEF, dated as of December 2, 2004; d) Letter Agreement between FGT and PEF, dated as of December 2, 2004, and Firm Transportation Service Agreement between FGT and PEF to be entered into upon satisfaction of certain conditions precedent; e) Discount Agreement between FGT and PEF, dated as of December 2, 2004; f) Amendment to Gas Sale and Purchase Contract between BG and PEF, dated as of January 28, 2005; and g) Letter Agreement between FGT and PEF, dated as of January 31, 2005, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K/A filed on March 15, 2005, File Nos. 1-15929 and 1-3274). (Portions of the exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.)		X	X
10.34	Engineering, Procurement and Construction Agreement between Duke Energy Florida, Inc. (formerly Florida Power Corporation d/b/a/ Progress Energy Florida, Inc.), as owner, and a consortium consisting of Westinghouse Electric Company LLC and Stone & Webster, Inc., as contractor, for a two-unit AP1000 Nuclear Power Plant, dated as of December 31, 2008, (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on March 2, 2009, File Nos. 1-15929 and 1-3274). (Portions of the exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.)		X	X
10.35**	Employment Agreement between Duke Energy Corporation and Lynn J. Good, dated as of June 17, 2013, (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Current Report on Form 8-K filed on June 18, 2013, File No. 1-32853).	X		
10.35.1**	Amendment to Employment Agreement between Duke Energy Corporation and Lynn J. Good, dated as of June 25, 2015, (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Current Report on Form 8-K filed on June 29, 2015, File No. 1-32853).	X		
10.36**	Duke Energy Corporation Executive Short-Term Incentive Plan, effective February 25, 2013, (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Current Report on Form 8-K filed on May 7, 2013, File No. 1-32853).	X		

10.37**	Duke Energy Corporation 2017 Director Compensation Program Summary (incorporated by reference to Exhibit 10.3 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 filed on August 3, 2017, File No. 1-32853).	X				
10.38**	Amended and Restated Duke Energy Corporation Executive Savings Plan, dated as of January 1, 2014, (incorporated by reference to Exhibit 10.82 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2013, filed on February 28, 2014, File No. 1-32853).	X				
10.38.1	Amendment to Duke Energy Corporation Executive Savings Plan, effective as of January 1, 2014 (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, filed on November 3, 2017, File No. 1-32853).	X				
10.39	Agreement between Duke Energy SAM, LLC, Duke Energy Ohio, Inc., Duke Energy Commercial Enterprise, Inc. and Dynegy Resource I, LLC, dated as of August 21, 2014, (incorporated by reference to Exhibit 10.61 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2014, filed on March 2, 2015, File No. 1-32853).	X				X
10.40	Asset Purchase Agreement between Duke Energy Progress, Inc. and North Carolina Eastern Municipal Power Agency, dated as of September 5, 2014, (incorporated by reference to Exhibit 10.62 to Duke Energy Corporation's Annual Report on Form 10-K for the year ended December 31, 2014, filed on March 2, 2015, File No. 1-32853).	X		X		
10.41	Change in Control Agreement between Duke Energy Corporation and Lloyd M. Yates, dated as of April 30, 2014, (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Current Report on Form 8-K filed on May 6, 2014, File No. 1-32853).	X				
10.42	Accelerated Stock Repurchase Program executed by Goldman, Sachs & Co., and JPMorgan Chase Bank, N.A. on April 6, 2015, under an agreement with Duke Energy Corporation (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Current Report on Form 8-K filed on April 6, 2015, File No. 1-32853).	X				
10.43	Plea Agreement between Duke Energy Corporation and the Court of the Eastern District of North Carolina in connection with the May 14, 2015, Dan River Grand Jury Settlement (incorporated by reference to Exhibit 10.3 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 7, 2015, File No. 1-32853).	X				
10.44	Plea Agreement between Duke Energy Corporation and the Court of the Eastern District of North Carolina in connection with the May 14, 2015, Dan River Grand Jury Settlement (incorporated by reference to Exhibit 10.4 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2015, filed on August 7, 2015, File No. 1-32853).	X				

10.45	$1,500,000,000 Amended and Restated Term Loan Agreement among Duke Energy Corporation, as Borrower, the Lenders listed therein, The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Administrative Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., Santander Bank, N.A. and TD Bank, N.A., as Joint Lead Arrangers and Bookrunners, dated as of August 1, 2016, (incorporated by reference to Exhibit 10.1 to Duke Energy Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30,2016, filed on August 4, 2016, File No. 1-32853).	X
10.46	Purchase and Sale Agreement by and among Duke Energy International Group S.à.r.l., Duke Energy International Brazil Holdings S.à.r.l. and China Three Gorges (Luxembourg) Energy S.à.r.l., dated as of October 10, 2016, (incorporated by reference to Exhibit 2.1 to registrant's Current Report on Form 8-K filed on October 13, 2016, File No. 1-32853).	X
10.47	Purchase and Sale Agreement by and among Duke Energy Brazil Holdings II, C.V., Duke Energy International Uruguay Investments SRL, Duke Energy International Group S.à.r.l., Duke Energy International España Holdings SL, Duke Energy International Investments No. 2 Ltd., ISQ Enerlam Aggregator, L.P., and Enerlam (UK) Holdings Ltd., dated as of October 10, 2016, (incorporated by reference to Exhibit 2.2. to registrant's Current Report on Form 8-K filed on October 13, 2016, File No. 1-32853).	X
10.48**	Amended and Restated Employment Agreement, dated May 25, 2012, between Piedmont Natural Gas Company, Inc. and Franklin H. Yoho (incorporated by reference to Exhibits 10.1 and 10.2 to Piedmont Natural Gas Company, Inc.'s Quarterly Report on Form 10-Q for the quarter ended July 31, 2012, filed on September 7, 2012, File No. 1-06196).	X
10.49**	Severance Agreements with Thomas E. Skains and Franklin H. Yoho, dated September 4, 2007, (incorporated by reference to Exhibits 10.2 and 10.2a to Piedmont Natural Gas Company, Inc's Quarterly Report on Form 10-Q for the quarter ended July 31, 2007, filed on September 7, 2007, File No. 1-06196).	X
10.50**	Piedmont Natural Gas Company, Inc. Incentive Compensation Plan (incorporated by reference to Exhibit 10.64 to registrant's Annual Report on Form 10-K for the year ended December 31, 2016 filed on February 24, 2017, File No. 1-32853).	X
10.50.1**	First Amendment to Piedmont Natural Gas Company, Inc. Incentive Compensation Plan (incorporated by reference to Exhibit 4.2 to registrant's Registration Statement on Form S-8 filed on October 3, 2016, File No. 1-32853).	X
10.51**	Form of Performance Unit Award Agreement (incorporated by reference to Exhibit 10.4 to registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 2016, filed on March 9, 2016, File No. 1-06196).	X
10.52**	Waiver of Certain Rights to Terminate for Good Reason between Duke Energy Corporation and Franklin H. Yoho (incorporated by reference to Exhibit 10.66 to registrant's Annual Report on Form 10-K for the year ended December 31, 2016 filed on February 24, 2017, File No. 1-32853).	X

10.53**	Notice of Non-Renewal of Employment Agreement between Duke Energy Corporation and Franklin H. Yoho (incorporated by reference to Exhibit 10.67 to registrant's Annual Report on Form 10-K for the year ended December 31, 2016 filed on February 24, 2017, File No. 1-32853).	X	
10.54**	Retention Award Agreement, dated as of October 24, 2015, between Duke Energy Corporation and Franklin H. Yoho (incorporated by reference to Exhibit 10.68 to registrant's Annual Report on Form 10-K for the year ended December 31, 2016 filed on February 24, 2017, File No. 1-32853).	X	
10.55	$1,000,000,000 Credit Agreement, dated as of June 14, 2017, among Duke Energy Corporation, the lenders listed therein, The Bank of Nova Scotia, as Administrative Agent, PNC Bank, National Association, Sumitomo Mitsui Banking Corporation and TD Bank, N.A., as C0-Syndication Agents, and Bank of China, New York Branch, BNP Paribas, Santander Bank, N.A. and U.S. Bank National Association, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on June 14, 2017, File No. 1-32853).	X	
10.56	$250,000,000 Term Loan Credit Agreement, dated as of June 14, 2017, among Piedmont Natural Gas Company, Inc. the lenders listed therein, U.S. Bank National Association, as Administrative Agent, Branch Banking and Trust Company and Regions Bank, as Co-Syndication Agents and PNC Bank, National Association, as Documentation Agent (incorporated by reference to Exhibit 10.1 to registrant's Current Report on Form 8-K filed on June 14, 2017, File No. 1-06196).		X
10.56.1	Amendment No. 1 to the Term Loan Credit Agreement, dated as of September 13, 2018, among Piedmont Natural Gas Company, Inc., the lenders listed therein, U.S. Bank National Association, as Administrative Agent, and PNC Bank, National Association, Bank of New York Mellon and KeyBank, National Association, as Co-Documentation Agents (incorporated by reference to Exhibit 10.1 to registrant's Quarterly Report on Form 10-Q filed on November 2, 2018, File No. 1-32853).	X	
10.57	Note Purchase Agreement, dated as of May 6, 2011, among Piedmont Natural Gas Company, Inc. and the Purchasers party thereto (incorporated by reference to Exhibit 10 to registrant's Current Report on Form 8-K filed on May 12, 2011, File No. 1-06196).		X
10.58	Amended and Restated Limited Liability Company Agreement of Constitution Pipeline Company, LLC dated April 9, 2012, by and among Williams Partners Operating LLC and Cabot Pipeline Holdings LLC (incorporated by reference to Exhibit 10.1 to registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 2013, filed on March 6, 2013, File No. 1-06196).		X

10.58.1	First Amendment to Amended and Restated Limited Liability Company Agreement of Constitution Pipeline Company, LLC, dated as of November 9, 2012, by and among Constitution Pipeline Company, LLC, Williams Partners Operating LLC, Cabot Pipeline Holdings LLC, and Piedmont Constitution Pipeline Company, LLC (incorporated by reference to Exhibit 10.2 to registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 2013, filed on March 6, 2013, File No. 1-06196).											X
10.58.2	Second Amendment to Amended and Restated Limited Liability Company Agreement of Constitution Pipeline Company, LLC, dated as of May 29, 2013, by and among Constitution Pipeline Company, LLC, Williams Partners Operating LLC, Cabot Pipeline Holdings LLC, Piedmont Constitution Pipeline Company, LLC, and Capitol Energy Ventures Corp. (incorporated by reference to Exhibit 99.1 to registrant's Current Report on Form 8-K filed on September 4, 2013, File No. 1-06196).											X
10.59	Second Amended and Restated Limited Liability Company Agreement of SouthStar Energy Services LLC, dated as of September 1, 2013, by and between Georgia Natural Gas Company and Piedmont Energy Company (incorporated by reference to Exhibit 10.39 to registrant's Annual Report on Form 10-K for the year ended October 31, 2013, filed on December 23, 2013, File No. 1-06196).											X
10.60	Limited Liability Company Agreement of Atlantic Coast Pipeline, LLC, dated as of September 2, 2014, by and between Dominion Atlantic Coast Pipeline, LLC, Duke Energy ACP, LLC, Piedmont ACP Company, LLC, and Maple Enterprise Holdings, Inc. (incorporated by reference to Exhibit 10.35 to registrant's Annual Report on Form 10-K for the year ended October 31, 2014, filed on December 23, 2014, File No. 1-06196).											X
*21	List of Subsidiaries	X										
*23.1.1	Consent of Independent Registered Public Accounting Firm.	X										
*23.1.2	Consent of Independent Registered Public Accounting Firm.		X									
*23.1.3	Consent of Independent Registered Public Accounting Firm.					X						
*23.1.4	Consent of Independent Registered Public Accounting Firm.						X					
*23.1.5	Consent of Independent Registered Public Accounting Firm.							X				
*23.1.6	Consent of Independent Registered Public Accounting Firm.								X			
*23.1.7	Consent of Independent Registered Public Accounting Firm.											X
*24.1	Power of attorney authorizing Lynn J. Good and others to sign the Annual Report on behalf of the registrant and certain of its directors and officers.	X										
*24.2	Certified copy of resolution of the Board of Directors of the registrant authorizing power of attorney.	X										
*31.1.1	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X										
*31.1.2	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.		X									

*31.1.3	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.			X						
*31.1.4	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X					
*31.1.5	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X				
*31.1.6	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.						X			
*31.1.7	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.							X		
*31.1.8	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.								X	
*31.2.1	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X								
*31.2.2	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.		X							
*31.2.3	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.			X						
*31.2.4	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				X					
*31.2.5	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X				
*31.2.6	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.						X			
*31.2.7	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.							X		
*31.2.8	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.								X	
*32.1.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X								
*32.1.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.		X							
*32.1.3	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.			X						
*32.1.4	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X					
*32.1.5	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X				
*32.1.6	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.						X			

*32.1.7	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.							X	
*32.1.8	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.								X
*32.2.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X							
*32.2.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.		X						
*32.2.3	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.			X					
*32.2.4	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X				
*32.2.5	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X			
*32.2.6	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.						X		
*32.2.7	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.							X	
*32.2.8	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.								X
*101.INS	XBRL Instance Document	X	X	X	X	X	X	X	X
*101.SCH	XBRL Taxonomy Extension Schema Document	X	X	X	X	X	X	X	X
*101.CAL	XBRL Taxonomy Calculation Linkbase Document	X	X	X	X	X	X	X	X
*101.LAB	XBRL Taxonomy Label Linkbase Document	X	X	X	X	X	X	X	X
*101.PRE	XBRL Taxonomy Presentation Linkbase Document	X	X	X	X	X	X	X	X
*101.DEF	XBRL Taxonomy Definition Linkbase Document	X	X	X	X	X	X	X	X

The total amount of securities of each respective registrant or its subsidiaries authorized under any instrument with respect to long-term debt not filed as an exhibit does not exceed 10 percent of the total assets of such registrant and its subsidiaries on a consolidated basis. Each registrant agrees, upon request of the SEC, to furnish copies of any or all of such instruments to it.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY
CORPORATION
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chairman, President and Chief Executive Officer (Principal Executive Officer and Director)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

Michael G. Browning*	James B. Hyler, Jr.*
Annette K. Clayton*	William E. Kennard*
Theodore F. Craver, Jr.*	E. Marie McKee*
Robert M. Davis*	Charles W. Moorman IV*
Daniel R. DiMicco*	Carlos A. Saladrigas*
John H. Forsgren*	Thomas E. Skains*
Lynn J. Good*	William E. Webster, Jr.*
John T. Herron*	

Steven K. Young, by signing his name hereto, does hereby sign this document on behalf of the registrant and on behalf of each of the above-named persons previously indicated by asterisk (*) pursuant to a power of attorney duly executed by the registrant and such persons, filed with the Securities and Exchange Commission as an exhibit hereto.

By: /s/ STEVEN K. YOUNG

Attorney-In-Fact

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY
CAROLINAS, LLC
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ LYNN J. GOOD
Lynn J. Good

/s/ DHIAA M. JAMIL
Dhiaa M. Jamil

/s/ LLOYD M. YATES
Lloyd M. Yates

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

PROGRESS ENERGY, INC.
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ LYNN J. GOOD
Lynn J. Good

/s/ JULIA S. JANSON
Julia S. Janson

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY
PROGRESS, LLC
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ DOUGLAS F ESAMANN
Douglas F Esamann

/s/ LYNN J. GOOD
Lynn J. Good

/s/ DHIAA M. JAMIL
Dhiaa M. Jamil

/s/ JULIA S. JANSON
Julia S. Janson

/s/ LLOYD M. YATES
Lloyd M. Yates

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY FLORIDA, LLC
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ DOUGLAS F ESAMANN
Douglas F Esamann

/s/ LYNN J. GOOD
Lynn J. Good

/s/ DHIAA M. JAMIL
Dhiaa M. Jamil

/s/ JULIA S. JANSON
Julia S. Janson

/s/ LLOYD M. YATES
Lloyd M. Yates

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY OHIO, INC.
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ DOUGLAS F ESAMANN
Douglas F Esamann

/s/ LYNN J. GOOD
Lynn J. Good

/s/ DHIAA M. JAMIL
Dhiaa M. Jamil

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

DUKE ENERGY INDIANA, LLC
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG

Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS

Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ DOUGLAS F ESAMANN

Douglas F Esamann

/s/ KELLEY A. KARN

Kelley A. Karn

/s/ STAN PINEGAR

Stan Pinegar

Date: February 28, 2019

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019

PIEDMONT NATURAL GAS COMPANY, INC.
(Registrant)

By: /s/ LYNN J. GOOD

Lynn J. Good
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

(i) /s/ LYNN J. GOOD
Lynn J. Good
Chief Executive Officer (Principal Executive Officer)

(ii) /s/ STEVEN K. YOUNG
Steven K. Young
Executive Vice President and Chief Financial Officer (Principal Financial Officer)

(iii) /s/ DWIGHT L. JACOBS
Dwight L. Jacobs
Senior Vice President, Chief Accounting Officer, Tax and Controller (Principal Accounting Officer)

(iv) Directors:

/s/ LYNN J. GOOD
Lynn J. Good

/s/ DHIAA M. JAMIL
Dhiaa M. Jamil

/s/ FRANKLIN H. YOHO
Franklin H. Yoho

Date: February 28, 2019