

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 year ended

December 31, 2019

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 No.	Exact Name of Registrants as Specified in their Charters, Address and Telephone Number	State of Incorporation	I.R.S. Employer Identification Nos.
1-14201	SEMPRA ENERGY 488 8th Avenue San Diego, California 92101 (619) 696-2000	California	33-0732627
1-03779	SAN DIEGO GAS & ELECTRIC COMPANY 8326 Century Park Court San Diego, California 92123 (619) 696-2000	California	95-1184800
1-01402	SOUTHERN CALIFORNIA GAS COMPANY 555 West Fifth Street Los Angeles, California 90013 (213) 244-1200	California	95-1240705

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
SEMPRA ENERGY:		
Common Stock, without par value	SRE	NYSE
6% Mandatory Convertible Preferred Stock, Series A, \$100 liquidation preference	SREPREA	NYSE
6.75% Mandatory Convertible Preferred Stock, Series B, \$100 liquidation preference	SREPRB	NYSE
5.75% Junior Subordinated Notes Due 2079, \$25 par value	SREA	NYSE
SAN DIEGO GAS & ELECTRIC COMPANY:		
None		
SOUTHERN CALIFORNIA GAS COMPANY:		
None		

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

Title of Each Class

SEMPRA ENERGY:

None

SAN DIEGO GAS & ELECTRIC COMPANY:

None

SOUTHERN CALIFORNIA GAS COMPANY:

6% Preferred Stock, \$25 par value

6% Preferred Stock, Series A, \$25 par value

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

Sempra Energy	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
San Diego Gas & Electric Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Southern California Gas Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

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

Sempra Energy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
San Diego Gas & Electric Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Southern California Gas Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

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 registrants were required to file such reports), and (2) have 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 during the preceding 12 months (or for such shorter period that the registrants were required to submit such files).

Yes No

Indicate by check mark whether the registrant 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.

Sempra Energy:

Large Accelerated Filer Accelerated Filer Non-accelerated Filer Smaller Reporting Company Emerging Growth Company

San Diego Gas & Electric Company:

Large Accelerated Filer Accelerated Filer Non-accelerated Filer Smaller Reporting Company Emerging Growth Company

Southern California Gas Company:

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.

Sempra Energy	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
San Diego Gas & Electric Company	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Southern California Gas Company	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Sempra Energy	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
San Diego Gas & Electric Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Southern California Gas Company	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

Aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2019:

Sempra Energy	\$37.7	billion (based on the price at which the common equity was last sold as of the last business day of the most recently completed second fiscal quarter)
San Diego Gas & Electric Company	\$0	
Southern California Gas Company	\$0	

Common Stock outstanding, without par value, as of February 21, 2020:

Sempra Energy	292,276,007	shares
San Diego Gas & Electric Company	Wholly owned by Enova Corporation, which is wholly owned by Sempra Energy	
Southern California Gas Company	Wholly owned by Pacific Enterprises, which is wholly owned by Sempra Energy	

SAN DIEGO GAS & ELECTRIC COMPANY MEETS THE CONDITIONS OF GENERAL INSTRUCTIONS I(1)(a) AND (b) OF FORM 10-K AND IS THEREFORE FILING THIS REPORT WITH A REDUCED DISCLOSURE FORMAT AS PERMITTED BY GENERAL INSTRUCTION I(2).

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Sempra Energy Proxy Statement to be filed for its May 2020 annual meeting of shareholders are incorporated by reference into Part III of this annual report on Form 10-K.

Portions of the Southern California Gas Company Information Statement to be filed for its May 2020 annual meeting of shareholders are incorporated by reference into Part III of this annual report on Form 10-K.

SEMPRA ENERGY FORM 10-K
SAN DIEGO GAS & ELECTRIC COMPANY FORM 10-K
SOUTHERN CALIFORNIA GAS COMPANY FORM 10-K
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This combined Form 10-K is separately filed by Sempra Energy, San Diego Gas & Electric Company and Southern California Gas Company. Information contained herein relating to any individual company is filed by such company on its own behalf. Each company makes representations only as to itself and makes no other representation whatsoever as to any other company.

You should read this report in its entirety as it pertains to each respective reporting company. No one section of the report deals with all aspects of the subject matter. Separate Item 6 and 8 sections are provided for each reporting company, except for the Notes to Consolidated Financial Statements in Item 8. The Notes to Consolidated Financial Statements for all of the reporting companies are combined. All Items other than Items 6 and 8 are combined for the reporting companies.

The following terms and abbreviations appearing in the text of this report have the meanings indicated below.

GLOSSARY

2016 GRC FD	final decision in the California Utilities' 2016 General Rate Case
2019 GRC FD	final decision in the California Utilities' 2019 General Rate Case
AB	California Assembly Bill
AEP	American Electric Power Company, Inc.
AFUDC	allowance for funds used during construction
AOI	accumulated other comprehensive income (loss)
ARO	asset retirement obligation
ASC	Accounting Standards Codification
Asset Exchange Agreement	agreement and plan of merger among Oncor, SDTS and Sharyland Utilities
ASU	Accounting Standards Update
Bay Gas	Bay Gas Storage Company, Ltd.
Bcf	billion cubic feet
Bechtel	Bechtel Oil, Gas and Chemicals, Inc.
Blade	Blade Energy Partners
bps	basis points
Cal PA	California Public Advocates Office
CalGEM	California Geologic Energy Management Division (formerly known as Division of Oil, Gas, and Geothermal Resources or DOGGR)
California Utilities	San Diego Gas & Electric Company and Southern California Gas Company, collectively
Cameron LNG JV	Cameron LNG Holdings, LLC
CARB	California Air Resources Board
CCA	Community Choice Aggregation
CCC	California Coastal Commission
CCM	cost of capital adjustment mechanism
CEC	California Energy Commission
CENAGAS	Centro Nacional de Control de Gas
CFE	Comisión Federal de Electricidad (Federal Electricity Commission in Mexico)
Chilquinta Energía	Chilquinta Energía S.A. and its subsidiaries
CNE	Comisión Nacional de Energía (National Energy Commission) (Chile)
Con Ed	Consolidated Edison, Inc.
CPUC	California Public Utilities Commission
CRE	Comisión Reguladora de Energía (Energy Regulatory Commission in Mexico)
CRR	congestion revenue right
DA	Direct Access
DEN	Ductos y Energéticos del Norte, S. de R.L. de C.V.
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
Dth	dekatherm
DWR	California Department of Water Resources
ECA LNG JV	ECA LNG Holdings B.V.
ECA LNG Regasification	Energía Costa Azul, S. de R.L. de C.V. regasification
Ecogas	Ecogas México, S. de R.L. de C.V.
Edison	Southern California Edison Company, a subsidiary of Edison International
EFH	Energy Future Holdings Corp. (renamed Sempra Texas Holdings Corp.)
EFIH	Energy Future Intermediate Holding Company LLC (renamed Sempra Texas Intermediate Holding Company LLC)
Eltrans	Eltrans S.A., Eltrans II S.A. and Eltrans III S.A., collectively
EVA	energy management agreement
Enova	Enova Corporation
EPA	U.S. Environmental Protection Agency
EPC	engineering, procurement and construction
EPS	earnings per common share
ERCOT	Electric Reliability Council of Texas, Inc., the independent system operator and the regional coordinator of various electricity systems within Texas
ERR	eligible renewable energy resource

GLOSSARY (CONTINUED)

ETR	effective income tax rate
FERC	Federal Energy Regulatory Commission
Fitch	Fitch Ratings
FTA	Free Trade Agreement
Gazprom	Gazprom Marketing & Trading Mexico
GCIM	Gas Cost Incentive Mechanism
GHG	greenhouse gas
GRC	General Rate Case
HLBV	hypothetical liquidation at book value
HMRC	United Kingdoms Revenue and Customs Department
IEnova	Infraestructura Energética Nова, S.A.B. de C.V.
IEnova Pipelines	IEnova Pipelines, S. de R.L. de C.V.
IMG JV	Infraestructura Marina del Golfo
InfraREIT	InfraREIT, Inc.
InfraREIT Merger Agreement	agreement and plan of merger among Oncor, 1912 Merger Sub LLC (a wholly owned subsidiary of Oncor), Oncor T&D Partners, LP (a wholly owned indirect subsidiary of Oncor), InfraREIT and InfraREIT Partners, LP
IOU	investor-owned utility
IRC	U.S. Internal Revenue Code of 1986 (as amended)
IRS	Internal Revenue Service
ISFSI	independent spent fuel storage installation
ISO	Independent System Operator
ITC	investment tax credit
JPMorgan	J.P. Morgan Chase & Co.
JV	joint venture
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
LA Storage	LA Storage, LLC
LA Superior Court	Los Angeles County Superior Court
Leak	the leak at the SoCalGas Aliso Canyon natural gas storage facility injection-and-withdrawal well, SS25, discovered by SoCalGas on October 23, 2015
LIBOR	London Interbank Offered Rate
LIFO	last in first out
LNG	liquefied natural gas
LPG	liquid petroleum gas
LTIP	long-term incentive plan
Luz del Sur	Luz del Sur S.A.A. and its subsidiaries
MD&A	Management's Discussion and Analysis of Financial Condition and Results of Operations
Merger	The merger of EFH with an indirect subsidiary of Sempra Energy, with EFH continuing as the surviving company and as an indirect, wholly owned subsidiary of Sempra Energy
Merger Agreement	Agreement and Plan of Merger dated August 21, 2017, as supplemented by a Waiver Agreement dated October 3, 2017 and an amendment dated February 15, 2018, between Sempra Energy, EFH, EFH and an indirect subsidiary of Sempra Energy
Merger Consideration	Pursuant to the Merger Agreement, Sempra Energy paid consideration of \$9.45 billion in cash
Mexican Stock Exchange	La Bolsa Mexicana de Valores, S.A.B. de C.V., or BMV
MHI	Mitsubishi Heavy Industries, Ltd., Mitsubishi Nuclear Energy Systems, Inc., and Mitsubishi Heavy Industries America, Inc., collectively
Mississippi Hub	Mississippi Hub, LLC
MWh	million British thermal units (of natural gas)
Mcf	million cubic feet
Mbody's	Mbody's Investors Service, Inc.
MOU	Memorandum of Understanding
Mtpa	million tonnes per annum
MW	megawatt
MWh	megawatt hour
NAFTA	North American Free Trade Agreement

GLOSSARY (CONTINUED)

NAV	net asset value
NCI	noncontrolling interest(s)
NDT	nuclear decommissioning trusts
NEIL	Nuclear Electric Insurance Limited
NEM	net energy metering
NOL	net operating loss
NRC	Nuclear Regulatory Commission
OCI	other comprehensive income (loss)
OII	Order Instituting Investigation
OIR	Order Instituting a Rulemaking
O&M	operation and maintenance expense
OMECE	Otay Mesa Energy Center
OMECE LLC	Otay Mesa Energy Center LLC
OMI	Oncor Management Investment LLC
Oncor	Oncor Electric Delivery Company LLC
Oncor Holdings	Oncor Electric Delivery Holdings Company LLC
OSINERGMIN	Organismo Supervisor de la Inversión en Energía y Minería (Energy and Mining Investment Supervisory Body) (Peru)
Otay Mesa VIE	OMECE LLC VIE
PBOP	postretirement benefits other than pension
PE	Pacific Enterprises
PEMEX	Petróleos Mexicanos (Mexican state-owned oil company)
PG&E	Pacific Gas and Electric Company
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPA	power purchase agreement
PP&E	property, plant and equipment
PRP	Potentially Responsible Party
PSEP	Pipeline Safety Enhancement Plan
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
QF	Qualifying Facility
RBS	The Royal Bank of Scotland plc
RBS SEE	RBS Sempra Energy Europe
RBS Sempra Commodities	RBS Sempra Commodities LLP
REC	renewable energy certificate
ROE	return on equity
ROU	right-of-use
RPS	Renewables Portfolio Standard
RSU	restricted stock unit
SB	California Senate Bill
SCAQMD	South Coast Air Quality Management District
SDG&E	San Diego Gas & Electric Company
SDTS	Sharyland Distribution & Transmission Services, L.L.C. (a subsidiary of InfraREIT)
SEC	U.S. Securities and Exchange Commission
Securities Purchase Agreement	securities purchase agreement among Sharyland Utilities, LP, SU Investment Partners, L.P., Sempra Texas Utilities Holdings I, LLC (a wholly owned subsidiary of Sempra Energy) and Sempra Energy
SEDATU	Secretaría de Desarrollo Agrario, Territorial y Urbano (Mexican agency in charge of agriculture, land and urban development)
Sempra Global	holding company for most of Sempra Energy's subsidiaries not subject to California or Texas utility regulation
series A preferred stock	6% mandatory convertible preferred stock, series A
series B preferred stock	6.75% mandatory convertible preferred stock, series B
Sharyland Holdings	Sharyland Holdings, L.P.
Sharyland Utilities	Sharyland Utilities, L.L.C.
Shell	Shell México Gas Natural
SoCalGas	Southern California Gas Company

GLOSSARY (CONTINUED)

SONGS	San Onofre Nuclear Generating Station
SONGS Oil	CPUC's Order Instituting Investigation into the SONGS Outage
S&P	Standard & Poor's Global Ratings
TAG JV	TAG Norte Holding, S. de R.L. de C.V.
Tangguh PSC	Tangguh PSC Contractors
TC Energy	TC Energy Corporation (formerly known as TransCanada Corporation)
TCJA	Tax Cuts and Jobs Act of 2017
TdM	Termelétrica de Mexicali
TechnipFMC	TPOil & Gas Mexico, S. De R.L. De C.V., an affiliate of TechnipFMC plc
Tecnored	Tecnored S.A.
Tecsur	Tecsur S.A.
TO4	Electric Transmission Owner Formula Rate, effective through December 31, 2018
TO5	Electric Transmission Owner Formula Rate, new application
TTHC	Texas Transmission Holdings Corporation
TTI	Texas Transmission Investment LLC
TURN	The Utility Reform Network
USMCA	United States-Mexico-Canada Agreement
U.S. GAAP	accounting principles generally accepted in the United States of America
VaR	value at risk
VAT	value-added tax
Ventika	Ventika, S.A.P.I. de C.V. and Ventika II, S.A.P.I. de C.V., collectively
VIE	variable interest entity
Wildfire Fund	the fund established pursuant to AB 1054
Wildfire Legislation	AB 1054 and AB 111

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

We make statements in this report that are not historical fact and constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on assumptions with respect to the future, involve risks and uncertainties, and are not guarantees of performance. Future results may differ materially from those expressed in the forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the filing date of this report. We assume no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

In this report, forward-looking statements can be identified by words such as “believes,” “expects,” “anticipates,” “plans,” “estimates,” “projects,” “forecasts,” “should,” “could,” “would,” “will,” “confident,” “may,” “can,” “potential,” “possible,” “proposed,” “target,” “pursue,” “outlook,” “maintain,” or similar expressions, or when we discuss our guidance, strategy, goals, vision, mission, opportunities, projections or intentions.

Factors, among others, that could cause our actual results and future actions to differ materially from those described in any forward-looking statements include risks and uncertainties relating to:

- California wildfires and the risk that we may be found liable for damages regardless of fault and the risk that we may not be able to recover any such costs from insurance, the Wildfire Fund or in rates from customers;
- decisions, investigations, regulations, issuances of permits and other authorizations, renewal of franchises, and other actions by the CFE, CPUC, DOE, PUCT, regulatory and governmental bodies and jurisdictions in the U.S. and other countries in which we operate;
- the success of business development efforts, construction projects and major acquisitions and divestitures, including risks in (i) the ability to make a final investment decision and completing construction projects on schedule and budget; (ii) obtaining the consent of partners; (iii) counterparties’ financial or other ability to fulfill contractual commitments; (iv) the ability to complete contemplated acquisitions and/or divestitures; and (v) the ability to realize anticipated benefits from any of these efforts once completed;
- the resolution of civil and criminal litigation, regulatory investigations and proceedings and arbitrations;
- actions by credit rating agencies to downgrade our credit ratings or to place those ratings on negative outlook and our ability to borrow at favorable interest rates;
- moves to reduce or eliminate reliance on natural gas;
- weather, natural disasters, accidents, equipment failures, computer system outages and other events that disrupt our operations, damage our facilities and systems, cause the release of harmful materials, cause fires and subject us to liability for property damage or personal injuries, fines and penalties, some of which may not be covered by insurance (including costs in excess of applicable policy limits), may be disputed by insurers or may otherwise not be recoverable through regulatory mechanisms or may impact our ability to obtain satisfactory levels of affordable insurance;
- the availability of electric power and natural gas and natural gas storage capacity, including disruptions caused by failures in the transmission grid, limitations on the withdrawal or injection of natural gas from or into storage facilities, and equipment failures;
- cybersecurity threats to the energy grid, storage and pipeline infrastructure, the information and systems used to operate our businesses, and the confidentiality of our proprietary information and the personal information of our customers and employees;
- expropriation of assets, the failure of foreign governments and state-owned entities to honor the terms of contracts, and property disputes;
- the impact at SDG&E on competitive customer rates and reliability due to the growth in distributed power generation and from departing retail load resulting from customers transferring to DA, CCA or other forms of distributed power generation and the risk of nonrecovery for stranded assets and contractual obligations;
- Oncor’s ability to eliminate or reduce its quarterly dividends due to regulatory and governance requirements and commitments, including by actions of Oncor’s independent directors or a minority member director;
- volatility in foreign currency exchange, interest and inflation rates and commodity prices and our ability to effectively hedge the risk of such volatility;
- changes in trade policies, laws and regulations, including tariffs and revisions to or replacement of international trade agreements, such as the NAFTA, that may increase our costs or impair our ability to resolve trade disputes;
- the impact of changes to federal and state tax laws and our ability to mitigate adverse impacts; and
- other uncertainties, some of which may be difficult to predict and are beyond our control.

We caution you not to rely unduly on any forward-looking statements. You should review and consider carefully the risks, uncertainties and other factors that affect our business as described herein and in other reports that we file with the SEC.

PART I.

ITEM 1. BUSINESS

This report on Form 10-K includes information for the following separate registrants:

- Sempra Energy and its consolidated entities
- SDG&E and its consolidated VIE (until deconsolidation of the VIE on August 23, 2019)
- SoCalGas

References in this report to “we,” “our,” “us,” “our company” and “Sempra Energy Consolidated” are to Sempra Energy and its consolidated entities, collectively, unless otherwise indicated by the context. We refer to SDG&E and SoCalGas collectively as the California Utilities, which do not include Sempra Texas Utilities or the utility in our Sempra Mexico segment.

OVERVIEW

We are a California-based energy-services holding company. Our businesses invest in, develop and operate energy infrastructure, and provide electric and gas services to customers in North America. Sempra Energy was formed in 1998 through a business combination of Enova and PE, the holding companies of our regulated public utilities in California: SDG&E, which began operations in 1881, and SoCalGas, which began operations in 1867. We have since expanded our regulated public utility presence into Texas through our 2018 and 2020 acquisitions of an aggregate indirect 80.45% interest in Oncor and, in 2019, Oncor’s acquisition of InfraREIT and our acquisition of an indirect 50% interest in Sharyland Utilities. Since 1995, we have had a strong and growing presence in Mexico through IEnova, the first energy infrastructure company to be listed on the Mexican Stock Exchange. IEnova has a diverse portfolio of projects and assets serving Mexico’s growing energy needs. Our energy infrastructure footprint continues to expand across North America, through LNG development projects and assets in Louisiana, Texas and Mexico, including our indirect 50.2% interest in Cameron LNG JV, which commenced commercial operation of the first of three liquefaction trains in August 2019.

In 2018, we announced a multi-phase portfolio optimization initiative designed to sharpen our strategic focus on North America. We have since executed on that initiative by completing the sales of our renewables businesses and our non-utility natural gas storage assets in the U.S., and by entering into agreements to sell our South American businesses. We expect to complete the sales of our South American businesses in the first half of 2020. We present the South American businesses as discontinued operations throughout this report.

Business Strategy

Our mission is to be North America’s premier energy infrastructure company. We are focused on generating stable, predictable earnings and cash flows by investing in, developing and operating electric and gas infrastructure with the goal of delivering safe and reliable energy to our customers and increasing shareholder value.

DESCRIPTION OF BUSINESS BY SEGMENT

We operate our business through the following reportable segments:

- SDG&E
- SoCalGas
- Sempra Texas Utilities
- Sempra Mexico
- Sempra Renewables (until April 2019)
- Sempra LNG

SDG&E

SDG&E is a regulated public utility that provides electric services to a population of approximately 3.7 million and natural gas services to approximately 3.4 million of that population, covering a 4,100 square mile service territory in Southern California that encompasses San Diego County and an adjacent portion of southern Orange County.

Electric Utility Operations

Electric Transmission and Distribution System. Service to SDG&E's customers is supported by its electric transmission and distribution system, which includes substations and overhead and underground lines. These electric facilities are primarily in San Diego, Imperial and Orange counties of California, and in Arizona and Nevada and consist of 2,099 miles of transmission lines, 23,562 miles of distribution lines and 161 substations as of December 31, 2019. Periodically, various areas of the service territory require expansion to accommodate customer growth, reliability and safety.

SDG&E's 500-kV Southwest Powerlink transmission line, which is shared with Arizona Public Service Company and Imperial Irrigation District, extends from Palo Verde, Arizona to San Diego, California. SDG&E's share of the line is 1,162 MW, although it can be less under certain system conditions. SDG&E's Sunrise Powerlink is a 500-kV transmission line constructed and operated by SDG&E with import capability of 1,000 MW of power.

Mexico's Baja California transmission system is connected to SDG&E's system via two 230-kV interconnections with combined capacity of up to 408 MW in the north-to-south direction and 800 MW in the south-to-north direction, although it can be less under certain system conditions.

Edison's transmission system is connected to SDG&E's system via five 230-kV transmission lines.

Electric Resources. To meet customer demand, SDG&E supplies power from its own electric generation facilities and procures power on a long-term basis from other suppliers for resale through CPUC-approved purchased-power contracts or through purchases on a spot basis. SDG&E does not earn any return on commodity sales volumes. SDG&E's supply as of December 31, 2019 was as follows:

SDG&E – ELECTRIC RESOURCES⁽¹⁾

	Contract expiration date	Net operating capacity (MW)	% of total
Owned generation facilities, natural gas ⁽²⁾		1,193	23%
Purchased-power contracts:			
Qualifying facilities	2024 to 2026	132	3
Renewables:			
Wind	2023 to 2035	948	18
Solar	2030 to 2041	1,348	26
Other	2020 and thereafter	340	7
Tolling and other	2022 to 2042	1,170	23
Total		5,131	100%

⁽¹⁾ Excludes approximately 107.5 MW of battery storage owned and approximately 9.5 MW of battery storage contracted.

⁽²⁾ SDG&E owns and operates four natural gas-fired power plants, three of which are in California and one of which is in Nevada.

SDG&E is required to interconnect with and purchase power from QFs, a class of generating facilities established by the Public Utility Regulatory Policies Act of 1978, at rates that do not exceed SDG&E's avoided cost. SDG&E's QFs include cogeneration facilities, which produce electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, residential or institutional purposes. Charges under most of the contracts with QFs are based on what it would incrementally cost SDG&E to produce the power or procure it from other sources. Charges under the contracts with other suppliers are for firm and as-generated energy and are based on the amount of energy received or are tolls based on available capacity. Tolling contracts are purchased-power contracts under which SDG&E provides natural gas for generation to the energy supplier. The prices under these contracts include 125 MW at prices that are based on the market value at the time the contracts were negotiated.

SDG&E procures natural gas under short-term contracts for its owned generation facilities and for certain tolling contracts associated with purchased-power arrangements. Purchases are from various southwestern U.S. suppliers and are primarily priced based on published monthly bid-week indices.

SDG&E is a participant in the Western Systems Power Pool, which includes an electric-power and transmission-rate agreement that allows access to power trading with more than 300 member utilities, power agencies, energy brokers and power marketers located throughout the U.S. and Canada. Participants can make power transactions on standardized terms, including market-based rates, preapproved by the FERC. Participation in the Western Systems Power Pool is intended to assist members in managing power delivery and price risk.

Customers and Demand. SDG&E provides electric services through the generation, transmission and distribution of electricity to the following customer classes:

SDG&E – ELECTRIC CUSTOMER METERS AND VOLUMES

	Customer meter count	Volumes ⁽¹⁾ (millions of kWh)		
	December 31,	Years ended December 31,		
	2019	2019	2018	2017
Residential	1,305,380	5,982	6,336	6,577
Commercial	151,100	6,295	6,539	6,763
Industrial	410	2,044	2,169	2,198
Street and highway lighting	2,080	76	81	79
	1,458,970	14,397	15,125	15,617
CCA and DA	12,330	3,549	3,628	3,394
Total	1,471,300	17,946	18,753	19,011

⁽¹⁾ Includes intercompany sales.

San Diego's mild climate and SDG&E's robust energy efficiency programs contribute to lower consumption by our customers. Rooftop solar installations continue to reduce residential and commercial volumes sold by SDG&E. As of December 31, 2019, 2018 and 2017, the residential and commercial rooftop solar capacity in SDG&E's territory totaled 1,233 MW, 1,023 MW and 836 MW, respectively.

Demand for electricity is dependent on the health and expansion of the Southern California economy, prices of alternative energy products, consumer preference, environmental regulations, legislation, renewable power generation, the effectiveness of energy efficiency programs, demand-side management impact and distributed generation resources. California's energy policy supports increased electrification, particularly electrification of vehicles, which could result in significant increases in sales volumes in the coming years. Other external factors, such as the price of purchased power, the use of hydroelectric power, the use of and further development of renewable energy resources and energy storage, development of new natural gas supply sources, demand for natural gas and general economic conditions, can also result in significant shifts in the market price of electricity, which may in turn impact demand. Demand for electricity is also impacted by seasonal weather patterns (or "seasonality"), tending to increase in the summer months to meet cooling load and in the winter months to meet heating load.

Competition. SDG&E faces competition to serve its customer load from the growth in distributed and local power generation, including rooftop solar installations and battery storage, and the corresponding decrease in demand for power from departing retail load from customers transferring to load serving entities other than SDG&E. While SDG&E currently provides procurement service for the majority of its customer load, customers do have the ability to receive procurement service from a load serving entity other than SDG&E through programs such as DA and CCA. DA is currently limited by a cap based on gigawatt hours. Utility customers can also receive procurement through CCA, if the customer's local jurisdiction (city) offers such a program. Several local political jurisdictions, including the City of San Diego and other municipalities, are considering implementing or are implementing a CCA, which could result in SDG&E providing procurement service for less than half of its current customer load as early as 2021. When customers are served by another load serving entity, SDG&E no longer procures electricity for this departing load and the associated costs of the utility's procured resources could then be borne by SDG&E's remaining bundled procurement customers. To help achieve the goal of ratepayer indifference (whether or not customers are served by DA or CCA), the CPUC revised the Power Charge Indifference Adjustment framework by adopting several refinements, which SDG&E implemented on January 1, 2019.

Natural Gas Utility Operations

We describe SDG&E's natural gas utility operations below in "California Utilities' Natural Gas Utility Operations."

Key Noncash Performance Indicators

We use certain financial and non-financial metrics to measure how effective our businesses are in achieving their key business objectives. SDG&E's key noncash performance indicators include goals related to safety (including activities designed to help reduce the risk of wildfires), number of customers, electricity sold, system average rate and natural gas volumes transported and sold. Additional noncash performance indicators include customer service, company reputation, environmental considerations (including quantities of renewable energy purchases), on-time and on-budget completion of major projects and initiatives, and service reliability.

SoCalGas

SoCalGas is a regulated public utility that owns and operates a natural gas distribution, transmission and storage system that supplies natural gas to a population of approximately 22 million, covering a 24,000 square mile service territory that encompasses Southern California and portions of central California (excluding San Diego County, the City of Long Beach and the desert area of San Bernardino County).

Natural Gas Utility Operations

We describe SoCalGas' natural gas utility operations below in "California Utilities' Natural Gas Utility Operations."

Key Noncash Performance Indicators

Key noncash performance indicators for SoCalGas include goals related to safety, number of customers and natural gas volumes transported and sold. Additional noncash performance indicators include customer service, company reputation, environmental considerations, natural gas demand by customer segment, on-time and on-budget completion of major projects and initiatives, and service reliability.

California Utilities' Natural Gas Utility Operations

Natural Gas Procurement and Transportation

At December 31, 2019, SoCalGas' natural gas facilities include 3,058 miles of transmission and storage pipelines, 51,073 miles of distribution pipelines, 48,315 miles of service pipelines and nine transmission compressor stations, while SDG&E's natural gas facilities consist of 168 miles of transmission pipelines, 8,961 miles of distribution pipelines, 6,582 miles of service pipelines and one compressor station.

SoCalGas purchases natural gas under short-term and long-term contracts for the California Utilities' core customers. SoCalGas purchases natural gas from various sources, including from Canada, the U.S. Rockies and the southwestern regions of the U.S. Purchases of natural gas are primarily priced based on published monthly bid-week indices.

To help ensure the delivery of natural gas supplies to its distribution system and to meet the seasonal and annual needs of customers, SoCalGas has firm interstate pipeline capacity contracts that require the payment of fixed reservation charges to reserve firm transportation rights. Energy companies, primarily El Paso Natural Gas Company, Transwestern Pipeline Company and Kern River Gas Transmission Company, provide transportation services into SoCalGas' intrastate transmission system for supplies purchased by SoCalGas or its transportation customers from outside of California.

Natural Gas Storage

SoCalGas owns four natural gas storage facilities with a combined working gas capacity of 137 Bcf and over 200 injection, withdrawal and observation wells that provide natural gas storage services for core, noncore and non-end-use customers. SoCalGas' and SDG&E's core customers are allocated a portion of SoCalGas' storage capacity. SoCalGas offers the remaining storage capacity for sale to others, including SDG&E for its non-core customer requirements. Natural gas withdrawn from storage is important for ensuring service reliability during peak demand periods, including heating needs in the winter, as well as peak electric generation needs in the summer. The Aliso Canyon natural gas storage facility has a storage capacity of 86 Bcf and, subject to the CPUC limitations described below, represents 63% of SoCalGas' natural gas storage capacity. SoCalGas discovered a natural gas leak at one of its wells at the Aliso Canyon natural gas storage facility in October 2015 and permanently sealed the well in February 2016. SoCalGas was subsequently authorized to make limited withdrawals and injections of natural gas at the Aliso Canyon natural gas storage facility and, as of July 2018, has been directed by the CPUC to maintain up to 34 Bcf of working gas to help achieve reliability for the region at reasonable rates as determined by the CPUC. In July 2019, to maintain system reliability and price stability, the CPUC issued a protocol authorizing withdrawals of natural gas from the facility if gas

supply is low in the region. We discuss the Aliso Canyon natural gas storage facility leak in Note 16 of the Notes to Consolidated Financial Statements, in “Item 1A. Risk Factors” and in “Item 7. MD&A – Capital Resources and Liquidity – SoCalGas.”

Customers and Demand

SoCalGas and SDG&E sell, distribute and transport natural gas. SoCalGas purchases and stores natural gas for its core customers in its territory and SDG&E’s territory on a combined portfolio basis. SoCalGas also offers natural gas transportation and storage services for others.

CALIFORNIA UTILITIES – NATURAL GAS CUSTOMER METERS AND VOLUMES

	Customer meter count	Volumes (Bcf) ⁽¹⁾		
	December 31,	Years ended December 31,		
	2019	2019	2018	2017
SDG&E				
Residential	862,810			
Commercial	28,870			
Electric generation and transportation	3,110			
Natural gas sales		45	40	40
Transportation		26	28	35
Total	894,790	71	68	75
SoCalGas:				
Residential	5,755,780			
Commercial	248,320			
Industrial	25,110			
Electric generation and wholesale	40			
Natural gas sales		329	297	301
Transportation		547	553	603
Total	6,029,250	876	850	904

⁽¹⁾ Includes intercompany sales.

For regulatory purposes, end-use customers are classified as either core or noncore customers. Core customers are primarily residential and small commercial and industrial customers.

Most core customers purchase natural gas directly from SoCalGas or SDG&E. While core customers are permitted to purchase directly from producers, marketers or brokers, the California Utilities are obligated to provide reliable supplies of natural gas to serve the requirements of their core customers. A substantial portion of SoCalGas’ and SDG&E’s revenues are from core customers.

Noncore customers at SoCalGas consist primarily of electric generation, wholesale, and large commercial and industrial customers. A portion of SoCalGas’ noncore customers are non-end-users. SoCalGas’ non-end-users include wholesale customers consisting primarily of other utilities, including SDG&E, or municipally owned natural gas distribution systems. Noncore customers at SDG&E consist primarily of electric generation and large commercial customers.

Noncore customers are responsible for the procurement of their natural gas requirements, as the regulatory framework does not allow us to recover the cost of natural gas procured and delivered to noncore customers.

Demand for natural gas largely depends on the health and expansion of the Southern California economy, prices of alternative energy products, consumer preference, environmental regulations, legislation, California’s energy policy supporting increased electrification and renewable power generation, and the effectiveness of energy efficiency programs. Other external factors such as weather, the price of electricity, the use of hydroelectric power, the use of and further development of renewable energy resources and energy storage, development of new natural gas supply sources, demand for natural gas outside California, and general economic conditions can also result in significant shifts in market price, which may in turn impact demand.

One of the larger sources for natural gas demand is electric generation. Natural gas-fired electric generation within Southern California (and demand for natural gas supplied to such plants) competes with electric power generated throughout the western U.S. Natural gas transported for electric generating plant customers may be affected by the overall demand for electricity, growth in self-generation from rooftop solar, the addition of more efficient gas technologies, new energy efficiency initiatives, and the extent that regulatory changes in electric transmission infrastructure investment divert electric generation from the California

Utilities' respective service areas. The demand for natural gas may also fluctuate due to volatility in the demand for electricity due to climate change, weather conditions and other impacts, and the availability of competing supplies of electricity such as hydroelectric generation and other renewable energy sources. Given the significant quantity of natural gas-fired generation, natural gas is the dispatchable fuel of choice to help ensure electric reliability in our California service territories.

The natural gas distribution business is seasonal, and cash provided from operating activities generally is greater during and immediately following the winter heating months. As is prevalent in the industry, but subject to current regulatory limitations, SoCalGas usually injects natural gas into storage during the summer months (April through October), which reduces cash provided by operating activities during this period, and usually withdraws natural gas from storage during the winter months (November through March), which increases cash provided by operating activities, when customer demand is higher.

Sempra Texas Utilities

Sempra Texas Utilities is comprised of our equity method investments in Oncor Holdings, which we acquired in March 2018, and Sharyland Holdings, which we acquired in May 2019. We discuss these acquisitions in Note 5 of the Notes to Consolidated Financial Statements. Oncor Holdings is a direct, wholly owned entity of Sempra Texas Intermediate Holding Company LLC and, at December 31, 2019, owns an 80.25% interest in Oncor. TTI owns the remaining 19.75% interest in Oncor. Sempra Energy owns an indirect, 50% interest in Sharyland Holdings, which owns a 100% interest in Sharyland Utilities.

Certain ring-fencing measures, existing governance mechanisms and commitments, which we describe in "Item 1A. Risk Factors," remain in effect following the Merger and are intended to enhance Oncor Holdings' and Oncor's separateness from their owners and to mitigate the risk that these entities would be negatively impacted by the bankruptcy of, or other adverse financial developments affecting, their owners. Sempra Energy does not control Oncor Holdings or Oncor, and the ring-fencing measures, governance mechanisms and commitments limit our ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. These limitations include limited representation on the Oncor Holdings and Oncor boards of directors, as Oncor Holdings and Oncor will continue to have a majority of independent directors. Thus, Oncor Holdings and Oncor will continue to be managed independently (i.e., ring-fenced). As such, we account for our 100% ownership interest in Oncor Holdings as an equity method investment. See Note 6 of the Notes to Consolidated Financial Statements for information about our equity method investment in Oncor Holdings.

Oncor

Oncor is a regulated electric transmission and distribution utility that operates in the north-central, eastern, western and panhandle regions of Texas. Oncor provides the essential service of delivering electricity to end-use consumers through its transmission and distribution systems, as well as providing transmission grid connections to merchant generation facilities and interconnections to other transmission grids in Texas.

At December 31, 2019, Oncor had approximately 4,165 full-time employees, including approximately 745 employees under collective bargaining agreements.

Electricity Transmission. Oncor's electricity transmission business is responsible for the safe and reliable operations of its transmission network and substations. These responsibilities consist of the construction and maintenance of transmission facilities and substations and the monitoring, controlling and dispatching of high-voltage electricity over its transmission facilities in coordination with ERCOT, which we discuss below in "Regulation – ERCOT Market."

At December 31, 2019, Oncor's transmission system included approximately 17,799 circuit miles of transmission lines, 349 transmission stations and 775 distribution substations, which are interconnected to 100 generation facilities totaling 40,687 MW.

Transmission revenues are provided under tariffs approved by either the PUCT or, to a small degree related to limited interconnection to other markets, the FERC. Network transmission revenues compensate Oncor for delivery of electricity over transmission facilities operating at 60 kV and above. Other services offered by Oncor through its transmission business include system impact studies, facilities studies, transformation service and maintenance of transformer equipment, substations and transmission lines owned by other parties.

Electricity Distribution. Oncor's electricity distribution business is responsible for the overall safe and reliable operation of distribution facilities, including electricity delivery, power quality and system reliability. These responsibilities consist of the ownership, management, construction, maintenance and operation of the distribution system within its certificated service area. Oncor's distribution system receives electricity from the transmission system through substations and distributes electricity to end-users and wholesale customers through 3,594 distribution feeders.

Oncor's distribution system included more than 3.6 million points of delivery at December 31, 2019 and consisted of approximately 121,747 miles of overhead lines and underground lines.

Distribution revenues from residential and small business users are based on actual monthly consumption (kWh) and, depending on size and annual load factor, revenues from large commercial and industrial users are based either on actual monthly demand (kW) or the greater of actual monthly demand (kW) or 80% of peak monthly demand during the prior eleven months.

Customers and Demand. Oncor operates the largest transmission and distribution system in Texas. Oncor delivers electricity to more than 3.6 million homes and businesses in a territory with an estimated population in excess of 10 million and operates more than 139,000 miles of transmission and distribution lines as of December 31, 2019. The consumers of the electricity Oncor delivers are free to choose their electricity supplier from retail electric providers who compete for their business. Accordingly, Oncor is not a seller of electricity, nor does it purchase electricity for resale. Rather, Oncor provides transmission services to its electricity distribution business as well as non-affiliated electricity distribution companies, cooperatives and municipalities and distribution services to retail electric providers that sell electricity to retail customers. At December 31, 2019, Oncor's distribution customers consisted of approximately 90 retail electric providers and certain electric cooperatives in its certificated service area.

Oncor's service territory includes over 120 counties and more than 400 incorporated municipalities, including Dallas/Fort Worth and surrounding suburbs, as well as Waco, Wichita Falls, Odessa, Midland, Tyler and Killeen. Most of Oncor's power lines have been constructed over lands of others pursuant to easements or along public highways, streets and rights-of-way as permitted by law.

Oncor's revenues and results of operations are subject to seasonality, weather conditions and other electricity usage drivers, with revenues being highest in the summer.

Competition. Oncor operates in certificated areas designated by the PUCT. The majority of Oncor's service territory is single certificated, with Oncor as the only certificated transmission and distribution provider. However, in multi-certificated areas of Texas, Oncor competes with certain utilities and rural electric cooperatives for the right to serve end-use customers.

Sharyland Utilities

Sharyland Utilities is a regulated electric transmission utility that, as of December 31, 2019, owns and operates approximately 65 miles of electric transmission lines in south Texas, including a direct current line connecting Mexico and assets in McAllen, Texas. Sharyland Utilities is responsible for providing safe, reliable and efficient transmission and substation services and investing to support infrastructure needs throughout the ERCOT grid, which we discuss below in "Regulation – ERCOT Market." Transmission revenues are provided under tariffs approved by the PUCT.

Sempra Mexico

Our Sempra Mexico segment includes the operating companies of our subsidiary, IEnova, as well as certain holding companies and risk management activities. IEnova develops, owns and operates, or holds interests in, energy infrastructure in Mexico in two key energy markets: gas and power. IEnova's gas business offers pipeline services for natural gas, LPG and ethane, as well as storage for LNG and LPG and distribution of natural gas. Currently, IEnova is constructing marine and land terminals for the receipt, storage and delivery of liquid fuels. In its power business, IEnova operates a natural-gas-fired combined-cycle plant and wind and solar power generation facilities, and is constructing additional wind and solar power generation facilities.

Sempra Energy owns 66.6% of IEnova as of December 31, 2019, with the remaining shares held by NCI and traded on the Mexican Stock Exchange under the symbol IENOVA. The Mexican National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores, or CNBV) regulates the shares, which are registered with the Mexican National Securities Registry (Registro Nacional de Valores) maintained by the CNBV.

Gas Business

Pipelines and Related Assets/Facilities. At December 31, 2019, Sempra Mexico's assets/facilities consisted of 1,850 miles of natural gas transmission pipelines, 13 compressor stations, 139 miles of ethane pipelines, 118 miles of LPG pipelines and one LPG storage terminal in Mexico. These assets are contracted under long-term, U.S. dollar-based agreements with major industry participants such as the CFE, CENAGAS, PEMEX, Shell, Gazprom, Saavi Energy Solutions, LLC and other similar counterparties.

At December 31, 2019, our pipeline assets in Mexico had design capacity of approximately 16,501 MMcf per day of natural gas, 204 MMcf per day of ethane gas, 106,000 barrels per day of ethane liquid, 34,000 barrels per day of LPG transmission and 80,000 barrels of LPG storage.

LNG Regasification. Sempra Mexico operates its ECA LNG Regasification facility on land it owns in Baja California, Mexico. The ECA LNG Regasification facility is capable of processing one Bcf of natural gas per day and generates revenues from reservation and usage fees under terminal capacity agreements and nitrogen injection service agreements with Shell and Gazprom, expiring in 2028, that permit them, together, to use one-half of the terminal's capacity.

Sempra LNG has an agreement with Sempra Mexico to supply LNG to the ECA LNG Regasification facility. In connection with Sempra LNG's purchase agreement with Tangguh PSC, Sempra Mexico purchases from Sempra LNG the LNG delivered by Tangguh PSC to the ECA LNG Regasification facility. Sempra Mexico uses the natural gas produced from this LNG and natural gas purchased in the market or through Sempra LNG's marketing operations to supply a contract for the sale of natural gas to Mexico's national electric company, the CFE, at prices that are based on the SoCal Border index. If LNG volumes received from Tangguh PSC are not sufficient to satisfy the commitment to the CFE, Sempra Mexico may purchase natural gas from Sempra LNG's marketing operations.

Although the LNG purchase agreement with Tangguh PSC specifies a number of cargoes to be delivered annually, actual cargoes delivered have been significantly lower than the maximum specified under the agreement. As a result, Sempra LNG is contractually required to make monthly indemnity payments to Sempra Mexico for failure to deliver the contracted LNG.

The LNG regasification business is impacted by worldwide LNG market prices. High LNG prices in markets outside the market in which Sempra Mexico's ECA LNG Regasification facility operates have resulted and could continue to result in lower than expected deliveries of LNG cargoes to the ECA LNG Regasification facility, which could increase costs if Sempra Mexico is instead required to obtain LNG in the open market at prevailing prices. Any inability to obtain expected LNG cargoes could also impact Sempra Mexico's ability to maintain the minimum level of LNG required to keep the ECA LNG Regasification facility in operation at the proper temperature. Prices in international LNG markets through which Sempra Mexico must purchase natural gas to meet its contractual obligations to deliver natural gas to customers may also affect Sempra Mexico's LNG marketing operations, which could have an adverse impact on its earnings, but may be mitigated in part by the indemnity payments discussed above.

Sempra Mexico's LNG marketing operations sell natural gas to the CFE and other customers under supply agreements. Sempra Mexico recognizes the revenue from the sale of natural gas upon transfer of the natural gas via pipelines to the customers at the agreed upon delivery points, and in the case of the CFE, at its thermoelectric power plants.

Natural Gas Distribution. Sempra Mexico's natural gas distribution regulated utility, Ecogas, operates in three separate distribution zones in Mexico with approximately 2,571 miles of pipeline, and had approximately 132,000 customer meters (serving more than 425,000 residential, commercial and industrial consumers) with sales volume of approximately eight MMcf per day in 2019.

Ecogas relies on supply and transportation services from Sempra LNG and SoCalGas for the natural gas that it distributes to its customers. If these affiliates fail to perform and Ecogas is unable to obtain supplies of natural gas from alternate sources, Ecogas could lose customers and sales volume and could also be exposed to commodity price risk and volatility.

Ecogas faces competition from other distributors of natural gas in each of its three distribution zones in Mexicali, Chihuahua and La Laguna-Durango as other distributors of natural gas build or consider building natural gas distribution systems.

Power Business

Renewable Power Generation. Sempra Mexico develops, invests in and operates renewable energy generation facilities that have long-term PPAs to sell the electricity they generate to its customers, which are generally load serving entities, as well as industrial and other customers. Load serving entities sell electric service to their end-users and wholesale customers upon receipt of our power delivery, while industrial and other customers consume the electricity to run their facilities. At December 31, 2019, Sempra Mexico had a fully contracted, total nameplate capacity of 658 MW related to its fully operating wind and solar energy generation facilities.

Natural Gas-Fired Generation. TdM is a 625-MW natural gas-fired power plant located in Mexicali, Baja California, Mexico that generates revenue from selling electricity and/or resource adequacy to the California ISO and to governmental, public utility and wholesale power marketing entities. It also has an EMA with Sempra LNG for energy marketing, scheduling and other related services to support its sales of generated power into the California electricity market. Under the EMA, TdM pays fees to Sempra LNG for these revenue-generating services. TdM also purchases fuel from Sempra LNG. Sempra Mexico records revenue for the sale of power generated by TdM and records cost of sales for the purchases of natural gas and energy management services provided by Sempra LNG.

TdM competes daily with other generating plants that supply power into the California electricity market. Several of the wholesale markets supplied by merchant power plants have experienced significant pricing declines due to excess supply. IEnova

manages commodity price risk at TdM by optimizing a mix of forward on-peak energy sales, daily and hourly spot market sales of capacity, energy and ancillary services, and longer-term structured transactions, and by avoiding short positions.

Demand and Competition

The overall demand for natural gas distribution services increases during the winter months, while the overall demand for electricity increases during the summer months.

Enova competes with Mexican and foreign companies for certain new energy infrastructure projects in Mexico. Some of its competitors (including public or state-operated companies and their affiliates) may have better access to capital and greater financial and other resources, which could give them a competitive advantage in bidding for such projects.

Sempra Mexico's pipeline and storage facilities businesses compete with other regulated and unregulated pipeline and storage facilities. They compete primarily on the basis of price (in terms of storage and transportation fees), available capacity and interconnections to downstream markets.

Sempra Mexico's gas business competitors include, among others:

- Bulkmatic Transport Company, Inc.
- CENAGAS
- Corporativo Lodemo, S.A. de C.V.
- Engie S.A.
- Femaca Global LP
- Glencore plc
- Kinder Morgan, Inc.
- Monterra Energy LLC
- PEMEX
- TC Energy Corporation

Generation from Sempra Mexico's renewable energy assets is susceptible to fluctuations in naturally occurring conditions such as wind, inclement weather and hours of sunlight. Because Sempra Mexico sells power that it generates at its Energía Sierra Juárez wind power generation facility into California, Sempra Mexico's future performance and the demand for renewable energy may be impacted by U.S. state mandated requirements to deliver a portion of total energy load from renewable energy sources. The rules governing these requirements in California are generally known as the RPS Program. In California, certification of a generation project by the CEC as an ERR allows the purchase of output from such generation facility to be counted towards fulfillment of the RPS Program requirements, if such purchase meets the provisions of SB X1-2. The RPS Program may affect the demand for output from renewables projects developed by Sempra Mexico, particularly the demand from California's utilities. We expect to receive ERR certification for all our Sempra Mexico renewable facilities providing power to California as they become operational.

Sempra Mexico's power business competitors include, among others:

- Acciona S.A.
- Engie S.A.
- Enel SpA
- Iberdrola S.A.
- Pattern Energy Group, Inc.
- Salka Energy
- Terra-Gen, LLC

Key Noncash Performance Indicators

Key noncash performance indicators for Sempra Mexico include sales volume, plant or facility availability, capacity utilization and, for its distribution operations, customer count and consumption. Additional noncash performance indicators include obtaining and completing (on time and on budget) major projects, compliance with reliability and regulatory standards, and goals related to safety, environmental considerations and regulatory performance.

Sempra Renewables

Sempra Renewables developed, owned and operated, or held interests in, wind energy generation facilities in the U.S. that had long-term PPAs to sell the electricity and the related green energy attributes they generated to its customers, which were generally load serving entities.

In December 2018, Sempra Renewables completed the sale of its solar assets, solar and battery storage development projects, as well as its ownership interest in one wind facility, to a subsidiary of Con Ed. In April 2019, Sempra Renewables completed the sale of its remaining wind assets and investments to AEP. Upon completion of the sales, remaining nominal business activities at Sempra Renewables were subsumed into Parent and other and the Sempra Renewables segment ceased to exist. We provide additional information about these sales in Notes 5 and 12 of the Notes to Consolidated Financial Statements.

Sempra LNG

Sempra LNG develops projects for the export of LNG, holds an interest in a facility for the export of LNG, owns and operates natural gas pipelines, and buys, sells and transports natural gas through its marketing operations, all within the U.S. and Mexico.

LNG Liquefaction

Cameron LNG JV. Sempra LNG and three project co-owners (TOTAL S.A., Mitsui & Co., Ltd., and Japan LNG Investment, LLC, a company jointly owned by Mitsubishi Corporation and Nippon Yusen Kabushiki Kaisha) hold interests in Cameron LNG JV for the development, construction and operation of a three-train natural gas liquefaction export facility at the existing Cameron LNG, LLC facility formerly used for regasification in Hackberry, Louisiana, a project developed and permitted by Sempra LNG. Sempra LNG accounts for its 50.2% equity interest in Cameron LNG JV under the equity method.

In August 2019, commercial operation of Train 1 commenced under Cameron LNG JV's tolling agreements. In February 2020, Train 2 reached substantial completion and we expect to commence commercial operation in the coming days. We believe it is reasonable to expect Train 3 will commence commercial operation in the third quarter of 2020.

The three liquefaction trains are designed to have a nameplate capacity of 13.9 Mtpa of LNG with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. Cameron LNG JV has 20-year liquefaction and regasification tolling capacity agreements in place with affiliates of TOTAL S.A., Mitsubishi Corporation and Mitsui & Co., Ltd., which subscribe the full nameplate capacity of three trains at the facility. In addition, Cameron LNG JV is working on the development of up to two additional trains. We discuss Cameron LNG JV in Note 6 of the Notes to Consolidated Financial Statements and the construction of the first three trains and the potential for an additional two trains in "Item 7. MD&A – Capital Resources and Liquidity – Sempra LNG" and in "Item 1A. Risk Factors."

Demand and Competition. Technological advances associated with shale gas and tight oil production have significantly reduced the need for North American LNG import facilities and increased interest in liquefaction and export opportunities.

At current forward gas prices, U.S. Gulf Coast liquefaction is one of the most price competitive potential LNG supply in the world, resulting from many factors, including:

- high levels of developed and undeveloped North American unconventional natural gas and tight oil resources relative to domestic consumption levels;
- increasing gas and oil drilling productivity and decreasing unit costs of gas production;
- low breakeven prices of marginal North American unconventional gas production; and
- proximity to ample existing gas transmission pipeline and underground gas storage capacity.

Brownfield liquefaction is particularly price competitive due to existing LNG tankage and berths.

Global LNG competition may limit U.S. LNG exports, as international liquefaction projects attempt to match U.S. Gulf Coast LNG production costs and customer contractual rights such as volume and destination flexibility. It is expected that U.S. LNG exports will increase competition for current and future global natural gas demand, and thereby facilitate development of a global commodity market for natural gas and LNG.

Our LNG liquefaction business' major domestic and international competitors currently include, among others, the following companies and their related LNG affiliates:

- | | |
|-------------------|---------------------------|
| ▪ Annova LNG | ▪ LNG Limited |
| ▪ Cheniere Energy | ▪ Next Decade |
| ▪ Energy Transfer | ▪ Pembina Resources |
| ▪ Freeport LNG | ▪ Tellurian Inc. |
| ▪ Golden Pass LNG | ▪ Venture Global Partners |

Additionally, our Cameron LNG JV co-owners and customers compete globally to market and sell LNG to end users, including gas and electric utilities located in LNG importing countries around the world. By providing liquefaction services, Cameron LNG JV competes indirectly with liquefaction projects currently operating and those under development in the global LNG market. In addition to the U.S., these competitors are located in the Middle East, Southeast Asia, Africa, South America, Australia and Europe.

Midstream

Sempra LNG has a 40-mile natural gas pipeline in south Louisiana. The Cameron Interstate Pipeline links the Cameron LNG facility in Cameron Parish, Louisiana, to five interstate pipelines that connect to major markets in the Midwest, Northeast and Southeast U.S.

In February 2019, Sempra LNG completed the sale of its non-utility natural gas storage assets in the southeast U.S. (comprised of Mississippi Hub and Bay Gas) to an affiliate of ArcLight Capital Partners. Upon completion of the sale, Sempra LNG has no operational natural gas storage capacity.

Demand and Competition. Sempra LNG's pipeline business competes with other regulated and unregulated pipelines, primarily on the basis of price (in terms of transportation fees), available capacity and interconnections to downstream markets.

Marketing Operations

Sempra LNG provides natural gas marketing, trading and risk management services through the utilization and optimization of contracted LNG, natural gas supply and transportation, as well as by optimizing its assets in the short-term services market. Additionally, it sells electricity under short-term and long-term contracts and into the spot market and other competitive markets.

Sempra LNG's marketing operations have an LNG sale and purchase agreement with Tangguh PSC for the supply of the equivalent of 500 MMcf of natural gas per day from Tangguh PSC's Indonesian liquefaction facility with delivery to Sempra Mexico's ECA LNG Regasification facility at a price based on the SoCal Border index for natural gas. The LNG purchase agreement allows Tangguh PSC to divert certain LNG volumes to other global markets in exchange for cash differential payments to Sempra LNG. Sempra LNG may also enter into short-term supply agreements to purchase LNG to be received, stored and regasified at the terminal for sale to other parties.

Sempra LNG is contracted to sell LNG or, if deliveries of LNG cargoes are not sufficient, natural gas, to Sempra Mexico that allows Sempra Mexico to satisfy its obligation under supply agreements with the CFE, TdM and other customers. These revenues are adjusted for indemnity payments and profit sharing, as discussed in "Sempra Mexico – Gas Business – LNG Regasification" above.

Sempra LNG also has an EMA with Sempra Mexico to provide energy marketing, scheduling and other related services to Sempra Mexico's TdM power plant to support its sales of generated power into the California electricity market. We discuss the EMA in "Sempra Mexico – Power Business – Natural Gas-Fired Generation" above.

Key Noncash Performance Indicators

Key noncash performance indicators at Sempra LNG include natural gas sales volume, plant or facility availability and capacity utilization. Additional noncash performance indicators include goals related to safety, environmental considerations and regulatory compliance, and on-time and on-budget completion of development projects.

Discontinued Operations

In January 2019, our board of directors approved a plan to sell our South American businesses, which previously constituted our Sempra South American Utilities segment. These businesses include our 100% interest in Chilquinta Energía in Chile, our 83.6% interest in Luz del Sur in Peru and our interests in two energy-services companies, Tecnoed and Tecsur, which provide electric construction and infrastructure services to Chilquinta Energía and Luz del Sur, respectively, as well as third parties. These businesses and certain activities associated with these businesses are presented as discontinued operations, as the sales represent a strategic shift that will have a major effect on our operations and financial results. We do not plan to have significant continuing involvement in or be able to exercise significant influence on the operating or financial policies of these operations after they are sold.

Chilquinta Energía is an electricity distribution utility in Chile, with an approximate 9% share of the market at December 31, 2019, serving a population of approximately 2 million in the regions of Valparaíso and Maule in central Chile, with a service area covering approximately 4,100 square miles. Chilquinta Energía also owns a 50% interest in Eletrans, which is engaged in the construction, operation and maintenance of power transmission facilities in Chile. Luz del Sur is an electric distribution utility that serves a population of approximately 4.9 million in the southern zone of metropolitan Lima, Peru, with a service area covering approximately 1,400 square miles. Luz del Sur indirectly owns and operates Santa Teresa, a 100-MW hydroelectric power plant located in the Cusco region of Peru. Luz del Sur delivers approximately 30% of all power used in Peru.

Chilquinta Energía and Luz del Sur serve primarily regulated customers and recognize revenues based on tariffs that are set by the CNE in Chile and the OSINERGMIN in Peru that are based on an efficient model distribution company defined by those agencies

and intended to cover the costs of the model company. Because the tariffs are not based on the costs of the specific utility, they may not result in full cost recovery. The tariffs are designed to provide for a pass-through to customers of transmission and energy charges, recovery of reasonable operating and administrative costs, incentives to reduce costs and make needed capital investments and a regulated rate of return on the distributor's regulated asset base.

The CNE's review process for authorized distribution and transmission rates generally remains in effect for a period of four years. The CNE reviews rates for four-year periods related to distribution and transmission separately on an alternating basis every two years. The components of tariffs for Luz del Sur are reviewed and adjusted every four years.

In September 2019, we entered into an agreement to sell our equity interests in our Peruvian businesses for an aggregate base purchase price of \$3.59 billion, subject to customary closing adjustments for working capital and changes in net indebtedness. In October 2019, we entered into an agreement to sell our equity interests in our Chilean businesses for an aggregate base purchase price of \$2.23 billion, subject to customary adjustments for working capital and changes in net indebtedness and other adjustments. We expect the sales to close in the first half of 2020.

We provide further information about discontinued operations in Note 5 of the Notes to Consolidated Financial Statements.

REGULATION

California State Utility Regulation

The California Utilities are principally regulated at the state level by the CPUC, CEC and CARB.

The CPUC:

- consists of five commissioners appointed by the Governor of California for staggered, six-year terms;
- regulates SDG&E's and SoCalGas' rates and conditions of service, sales of securities, rates of return, capital structure, rates of depreciation, and long-term resource procurement, except as described below in "U.S. Utility Regulation;"
- has jurisdiction over the proposed construction of major new electric generation, transmission and distribution, and natural gas storage, transmission and distribution facilities in California;
- conducts reviews and audits of utility performance and compliance with regulatory guidelines and conducts investigations into various matters, such as safety, deregulation, competition and the environment, to determine its future policies; and
- regulates the interactions and transactions of the California Utilities with Sempra Energy and its other affiliates.

The CPUC also oversees and regulates other products and services, including solar and wind energy, bioenergy, alternative energy storage and other forms of renewable energy. In addition, the CPUC's safety and enforcement role includes inspections, investigations and penalty and citation processes for safety violations.

The CEC publishes electric demand forecasts for the state and for specific service territories. Based on these forecasts, the CEC:

- determines the need for additional energy sources and conservation programs;
- sponsors alternative-energy research and development projects;
- promotes energy conservation programs to reduce demand for natural gas and electricity within California;
- maintains a statewide plan of action in case of energy shortages; and
- certifies power-plant sites and related facilities within California.

The CEC conducts a 20-year forecast of available supplies and prices for every market sector that consumes natural gas in California. This forecast includes resource evaluation, pipeline capacity needs, natural gas demand and wellhead prices, and costs of transportation and distribution. This analysis is one of many resource materials used to support the California Utilities' long-term investment decisions.

California requires certain of its electric retail sellers, including SDG&E, to deliver a significant percentage of their retail energy sales from renewable energy sources. The rules governing this requirement, administered by both the CPUC and the CEC, are generally known as the RPS Program.

AB 32, the California Global Warming Solutions Act of 2006, assigns responsibility to CARB for monitoring and establishing policies for reducing GHG emissions. The law requires CARB to develop and adopt a comprehensive plan for achieving real, quantifiable and cost-effective GHG emission reductions, including a statewide GHG emissions cap, mandatory reporting rules, and regulatory and market mechanisms to achieve reductions of GHG emissions. CARB is a department within the California Environmental Protection Agency, an organization that reports directly to the Governor's Office. Sempra LNG and Sempra Mexico are also subject to the rules and regulations of CARB.

The operation and maintenance of SoCalGas' natural gas storage facilities are regulated by CalGEM, as well as various other state and local agencies.

Texas State Utility Regulation

Oncor's and Sharyland Utilities' transmission and distribution rates are regulated at the state and city level by the PUCT and certain cities. The PUCT has original jurisdiction over transmission and distribution rates and services in unincorporated areas and in those municipalities that have ceded original jurisdiction to the PUCT, and has exclusive appellate jurisdiction to review the rate and service orders and ordinances of municipalities. Generally, the Texas PURA prohibits the collection of any rates or charges by a public utility (as defined by PURA) that do not have the prior approval of the appropriate regulatory authority (i.e., the PUCT or the municipality with original jurisdiction).

At the state level, PURA requires owners or operators of transmission facilities to provide open-access wholesale transmission services to third parties at rates and terms that are nondiscriminatory and comparable to the rates and terms of the utility's own use of its system. The PUCT has adopted rules implementing the state open-access requirements for all utilities that are subject to the PUCT's jurisdiction over transmission services, including Oncor.

U.S. Utility Regulation

The California Utilities are also regulated at the federal level by the FERC, the NRC, the EPA, the DOE and the DOT.

The FERC regulates the California Utilities' interstate sale and transportation of natural gas and the application of the uniform systems of accounts. In the case of SDG&E, the FERC also regulates the transmission and wholesale sales of electricity in interstate commerce, transmission access, rates of return on transmission investment, rates of depreciation and electric rates involving sales for resale. The Energy Policy Act governs procedures for requests for transmission service. The California IOUs' transmission facilities are under the operational control of the California ISO. Oncor and Sharyland Utilities operate within the ERCOT market, which we discuss below. To a small degree related to limited interconnections to other markets, Oncor's transmission revenues are provided under tariffs approved by the FERC.

The NRC oversees the licensing, construction, operation and decommissioning of nuclear facilities in the U.S., including SONGS, in which SDG&E owns a 20% interest and which was permanently retired in 2013. NRC and various state regulations require extensive review of the safety, radiological and environmental aspects of these facilities. We provide further discussion of SONGS matters, including the closure and pending decommissioning of the facility, in Note 15 of the Notes to Consolidated Financial Statements.

The EPA implements federal laws to protect human health and the environment, including federal laws on air quality, water quality, wastewater discharge, solid waste management, and hazardous waste disposal and remediation. The EPA also sets national environmental standards that state and tribal governments implement through their own regulations. The California Utilities, Oncor and Sharyland Utilities are therefore subject to an interrelated framework of environmental laws and regulations.

The DOT, through PHMSA, has established regulations regarding engineering standards and operating procedures applicable to the California Utilities' natural gas transmission and distribution pipelines, as well as natural gas storage facilities. The DOT has certified the CPUC to administer oversight and compliance with these regulations for the entities they regulate in California. See "Other U.S. Regulation" below.

ERCOT Market

Oncor and Sharyland Utilities operate within the ERCOT market, which represents approximately 90% of the electricity consumption in Texas. ERCOT is the regional reliability coordinating organization for member electricity systems in Texas and the ISO of the interconnected transmission grid for those systems. ERCOT is responsible for ensuring reliability, adequacy and security of the electric systems, as well as nondiscriminatory access to transmission service by all wholesale market participants in the ERCOT region. ERCOT's membership consists of corporate and associate members, including electric cooperatives, municipal power agencies, independent generators, independent power marketers, transmission service providers, distribution services providers, independent retail electric providers and consumers.

The PUCT has primary jurisdiction over the ERCOT market to ensure the adequacy and reliability of power supply across Texas' main interconnected transmission grid. Oncor and Sharyland Utilities, along with other owners of transmission and distribution facilities in Texas, assist the ERCOT ISO in its operations. Each of these Texas utilities has planning, design, construction, operation and maintenance responsibility for the portion of the transmission grid and for the load-serving substations it owns, primarily within its certificated distribution service area. Each participates with the ERCOT ISO and other ERCOT utilities in obtaining regulatory approvals and planning, designing, constructing and upgrading transmission lines in order to remove existing

constraints and interconnect generation on the ERCOT transmission grid. The transmission line projects are necessary to meet reliability needs, support energy production and increase bulk power transfer capability.

Oncor and Sharyland Utilities are subject to reliability standards adopted and enforced by the Texas Reliability Entity, Inc., an independent organization that develops reliability standards for the ERCOT region and monitors and enforces compliance with the North American Electric Reliability Corporation (including critical infrastructure protection) standards and ERCOT protocols.

Other State and Local Regulation Within the U.S.

The SCAQMD is the air pollution control agency responsible for regulating stationary sources of air pollution in the South Coast Air Basin in Southern California. The district's territory covers all of Orange County and the urban portions of Los Angeles, San Bernardino and Riverside counties.

SDG&E has electric franchises with the two counties and the 27 cities in or adjoining its electric service territory, and natural gas franchises with the one county and the 18 cities in its natural gas service territory. These franchises allow SDG&E to locate, operate and maintain facilities for the transmission and distribution of natural gas and/or electricity. Most of the franchises have indefinite lives with no expiration dates. Some of SDG&E's natural gas and electric franchises have fixed expiration dates that range from 2021 to 2035, including the City of San Diego, which is scheduled to expire in January 2021. The City of San Diego has launched the process to reevaluate SDG&E's natural gas and electric franchises, consistent with the terms of the City Charter.

SoCalGas has natural gas franchises with the 12 counties and the 223 cities in its service territory. These franchises allow SoCalGas to locate, operate and maintain facilities for the transmission and distribution of natural gas. Most of the franchises have indefinite lives with no expiration date. Some franchises have fixed expiration dates, ranging from 2020 to 2069.

Other U.S. Regulation

The FERC regulates certain Sempra LNG assets pursuant to the Federal Power Act and Natural Gas Act, which provide for FERC jurisdiction over, among other things, sales of wholesale power in interstate commerce, transportation of natural gas in interstate commerce, and siting and permitting of LNG facilities.

Sempra LNG's investment in Cameron LNG JV is subject to regulations of the DOE regarding the export of LNG.

The FERC may regulate rates and terms of service based on a cost-of-service approach or, in geographic and product markets determined by the FERC to be sufficiently competitive, rates may be market-based. FERC-regulated rates at Sempra LNG are:

- market-based for wholesale electricity sales
- cost-based for the transportation of natural gas
- market-based for the purchase and sale of LNG and natural gas

The California Utilities, Sempra LNG and businesses that Sempra LNG invests in are subject to the DOT rules and regulations regarding pipeline safety. PHMSA, acting through the Office of Pipeline Safety, is responsible for administering the DOT's national regulatory program to assure the safe transportation of natural gas, petroleum and other hazardous materials by pipelines, including pipelines associated with natural gas storage, and develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance and emergency response of pipeline facilities. The California Utilities, Sempra LNG and Sempra Mexico are also subject to regulation by the U.S. Commodity Futures Trading Commission.

Foreign Regulation

Operations and projects in our Sempra Mexico segment are subject to regulation by the CRE, the Mexican Safety, Energy and Environment Agency (Agencia de Seguridad, Energía y Ambiente), the Mexican Secretary of Energy (Secretaría de Energía or SENER) and other labor and environmental agencies of city, state and federal governments in Mexico.

Licenses and Permits

Our utilities in California and Texas obtain numerous permits, authorizations and licenses for, as applicable, the transmission and distribution of natural gas and electricity and the operation and construction of related assets, including electric generation and natural gas storage facilities, some of which may require periodic renewal.

Sempra Mexico obtains numerous permits, authorizations and licenses for their electric and natural gas distribution, generation and transmission systems from the local government where the service is provided. The permits for generation, transportation, storage and distribution operations at Sempra Mexico are generally for 30-year terms, with options for renewal under certain regulatory conditions.

Sempra Mexico and Sempra LNG obtain licenses and permits for the construction, operation and expansion of LNG facilities and for the import and export of LNG and natural gas. Sempra Mexico also obtains licenses and permits for the construction and operation of facilities for the receipt, storage and delivery of liquid fuels.

Sempra LNG obtains permits, authorizations and licenses for the construction and operation of natural gas storage facilities and pipelines, and in connection with participation in the wholesale electricity market.

Most of the permits and licenses associated with Sempra LNG's construction and operations are for periods generally in alignment with the construction cycle or life of the asset and in many cases are greater than 20 years.

RATEMAKING MECHANISMS

California Utilities

General Rate Case Proceedings. A CPUC GRC proceeding is designed to set sufficient base rates to allow the California Utilities to recover their reasonable forecasted operating costs and to provide the opportunity to realize their authorized rates of return on their investment. The proceeding generally establishes the test year revenue requirements, which authorizes how much the California Utilities can collect from their customers, and provides for attrition, or annual increases in revenue requirements, for each year following the test year. In January 2020, the CPUC implemented a four-year GRC cycle for California IOUs. The California Utilities were directed to file a petition for modification to revise their 2019 GRC to add two additional years, resulting in a transitional five-year GRC period (2019-2023).

Cost of Capital Proceedings. A CPUC cost of capital proceeding determines a utility's authorized capital structure and authorized return on rate base, which is a weighted-average of the authorized returns on debt, preferred stock and common equity (referred to as return on equity or ROE), weighted on a basis consistent with the authorized capital structure. The authorized return on rate base approved by the CPUC is the rate that the California Utilities use to establish customer rates to recover costs to finance investments in CPUC-regulated electric distribution and generation, as well as natural gas distribution, transmission and storage assets.

A cost of capital proceeding also addresses the CCM, which considers changes in interest rates based on the applicable 12-month average Moody's utility bond index. The CCM was reauthorized in the 2020 cost of capital proceeding and will continue through 2022. The CCM, if triggered, could automatically update the authorized cost of debt based on actual costs, and update the authorized ROE up or down by one-half of the change in the applicable 12-month average Moody's utility bond index.

We discuss the cost of capital in Note 4 of the Notes to Consolidated Financial Statements.

Transmission Rate Cases. SDG&E files separately with the FERC for its authorized ROE on FERC-regulated electric transmission operations and assets. The proceeding establishes a ROE and a formulaic rate whereby rates are determined using (1) a base period of historical costs and a forecast of capital investments, and (2) a true-up period, similar to balancing account treatment, that is designed to provide earnings equal to SDG&E's actual cost of service including its authorized return on investment. SDG&E makes annual information filings in December to update rates for the following calendar year. SDG&E may also file for ROE incentives that might apply under FERC rules. SDG&E's debt-to-equity ratio is set annually based on the actual ratio at the end of each year.

We discuss SDG&E's TO5 filing with the FERC in Note 4 of the Notes to Consolidated Financial Statements.

Incentive Mechanisms. The CPUC applies performance-based measures and incentive mechanisms to all California IOUs, under which the California Utilities have earnings potential above authorized CPUC base operating margin if they achieve or exceed specific performance and operating goals. Generally, for performance-based awards, if performance is above or below specific benchmarks, the utility is eligible for financial awards or subject to financial penalties.

SDG&E has incentive mechanisms associated with:

- operational incentives (electric reliability)
- energy efficiency

SoCalGas has incentive mechanisms associated with:

- energy efficiency
- natural gas procurement
- unbundled natural gas storage and system operator hub services

Other Cost-Based Recovery. The CPUC, and the FERC as it relates to SDG&E, authorize the California Utilities to collect revenue requirements for operating costs and capital related costs (such as depreciation, taxes and return on rate base) from customers, including:

- costs to purchase natural gas and electricity;
- costs associated with administering public purpose, demand response, and customer energy efficiency programs;
- other programmatic activities, such as gas distribution, gas transmission, gas storage integrity management and wildfire mitigation; and
- costs associated with third party liability insurance premiums.

Authorized costs are recovered as the commodity or service is delivered. To the extent authorized amounts collected vary from actual costs, the differences are generally recovered or refunded within a subsequent period based on the nature of the balancing account mechanism. In general, the revenue recognition criteria for balanced costs billed to customers are met at the time the costs are incurred. Because these costs are substantially recovered in rates through a balancing account mechanism, changes in these costs are reflected as changes in revenues. The CPUC and the FERC may impose various review procedures before authorizing recovery or refund for programs authorized, including limitations on the total cost of the program, revenue requirement limits or reviews of costs for reasonableness. These procedures could result in disallowances of recovery from ratepayers.

Sempra Texas Utilities

Rates and Cost Recovery. Oncor's and Sharyland Utilities' rates are regulated by the PUCT and certain cities and are subject to regulatory rate-setting processes and annual earnings oversight. This regulatory treatment does not provide any assurance as to achievement of earnings levels. Their rates are regulated based on an analysis of the respective utility's costs and capital structure, as reviewed and approved in regulatory proceedings. Rate regulation is premised on the full recovery of prudently incurred costs and a reasonable rate of return on invested capital. However, there is no assurance that the PUCT will judge all of the Texas utilities' costs to have been prudently incurred, that the PUCT will not reduce the amount of invested capital included in the capital structure that the Texas utilities' rates are based upon, that the regulatory process in which rates are determined will always result in rates that produce full recovery of the Texas utilities' costs or that their authorized ROE will not be reduced.

The PURA allows utilities to file, under certain circumstances, once per year and up to four rate adjustments between comprehensive base rate proceedings to recover distribution-related investments on an interim basis. The PUCT's substantive rules also allow the Texas utilities to update their transmission rates periodically on an interim basis to reflect changes in invested capital. These "capital tracker" provisions encourage investment in the electric system to help ensure reliability and efficiency by allowing for timely recovery of and return on new investments.

Capital Structure and Return on Equity. The PUCT approved rates in Oncor's and Sharyland Utilities' 2017 rate reviews that took effect in November 2017. Oncor's PUCT-authorized ROE is 9.8% and its authorized regulatory capital structure is 57.5% debt to 42.5% equity. Sharyland Utilities' PUCT-authorized ROE is 9.7% and its authorized regulatory capital structure is 55% debt to 45% equity.

Sempra Mexico

Ecogas' revenues are derived from service and distribution fees charged to its customers in pesos. The price Ecogas pays to purchase natural gas, which is based on international price indices, is passed through directly to its customers. The service and distribution fees charged by Ecogas are regulated by the CRE, which performs a review of rates every five years and monitors prices charged to end-users. The tariffs operate under a return-on-asset-base model. In the annual tariff adjustment, rates are adjusted to account for inflation or fluctuations in exchange rates, and inflation indexing includes separate U.S. and Mexican cost components so that U.S. costs can be included in the final distribution rates.

ENVIRONMENTAL MATTERS

We discuss environmental issues affecting us in Note 16 of the Notes to Consolidated Financial Statements and "Item 1A. Risk Factors." You should read the following additional information in conjunction with those discussions.

Hazardous Substances

The CPUC's Hazardous Waste Collaborative mechanism allows California's IOUs to recover hazardous waste cleanup costs for certain sites, including those related to certain Superfund sites. This mechanism permits the California Utilities to recover in rates

90% of hazardous waste cleanup costs and related third-party litigation costs, and 70% of the related insurance-litigation expenses. In addition, the California Utilities have the opportunity to retain a percentage of any recoveries from insurance carriers and other third parties to offset the cleanup and associated litigation costs not recovered in rates.

We record estimated liabilities for environmental remediation when amounts are probable and estimable. In addition, we record amounts authorized to be recovered in rates under the Hazardous Waste Collaborative mechanism as regulatory assets.

Air and Water Quality

The natural gas and electric industries are subject to increasingly stringent air quality and GHG standards, such as those established by CARB and SCAQMD. The California Utilities generally recover in rates the costs to comply with these standards. We discuss GHG standards and credits further in Note 1 of the Notes to Consolidated Financial Statements.

We discuss environmental matters concerning SoCalGas' Aliso Canyon natural gas storage facility in Note 16 of the Notes to Consolidated Financial Statements and in "Item 1A. Risk Factors."

OTHER MATTERS

Information About Our Executive Officers

INFORMATION ABOUT EXECUTIVE OFFICERS AT SEMPRA ENERGY

Name	Age ⁽¹⁾	Positions held over last five years	Time in position
Jeffrey W. Martin	58	Chairman	December 2018 to present
		Chief Executive Officer	May 2018 to present
		Executive Vice President and Chief Financial Officer	January 2017 to April 2018
		Chairman, SDG&E	November 2015 to December 2016
		President, SDG&E	October 2015 to December 2016
		Chief Executive Officer, SDG&E	January 2014 to December 2016
George W. Bilicic Jr.	56	President and Chief Legal Officer	January 2020 to present
		Group President	June 2019 to January 2020
		Vice Chairman of Investment Banking, Lazard, a financial advisory and asset management firm	October 2008 to June 2019
Dennis V. Arriola	59	Executive Vice President and Group President	October 2018 to present
		Chief Strategy Officer and Executive Vice President of External Affairs and South America	April 2018 to September 2018
		Executive Vice President - Corporate Strategy and External Affairs	January 2017 to April 2018
		Chairman, SoCalGas	November 2015 to December 2016
		Chief Executive Officer, SoCalGas	March 2014 to December 2016
Trevor I. Mhalik	53	President, SoCalGas	August 2012 to September 2016
		Executive Vice President and Chief Financial Officer	May 2018 to present
		Senior Vice President	December 2013 to April 2018
Peter R. Wall	48	Controller and Chief Accounting Officer	July 2012 to April 2018
		Vice President, Controller and Chief Accounting Officer	May 2018 to present
		Vice President and Chief Financial Officer, Sempra Infrastructure	January 2017 to April 2018
		Vice President and Chief Financial Officer, Sempra U.S. Gas & Power	March 2015 to December 2016
		Assistant Controller	December 2012 to March 2015

⁽¹⁾ Ages are as of February 27, 2020.

INFORMATION ABOUT EXECUTIVE OFFICERS AT SDG&E

Name	Age ⁽¹⁾	Positions held over last five years	Time in position
Kevin C. Sagara	58	Chairman and Chief Executive Officer	September 2018 to present
		President, Sempra Renewables	October 2013 to September 2018
Scott D. Drury	54	President	January 2017 to present
		Chief Energy Supply Officer	June 2015 to December 2016
		Vice President - Human Resources, Diversity and Inclusion	March 2011 to June 2015
Caroline A. Winn	56	Chief Operating Officer	January 2017 to present
		Chief Energy Delivery Officer	June 2015 to December 2016
		Vice President - Customer Services	April 2010 to June 2015
Bruce A. Folkmann	52	Senior Vice President	August 2019 to present
		Controller, Chief Financial Officer, Chief Accounting Officer and Treasurer	March 2015 to present
		Vice President	March 2015 to August 2019
		Vice President, Controller, Chief Financial Officer, Chief Accounting Officer and Treasurer, SoCalGas	March 2015 to June 2019
		Vice President and Chief Financial Officer, Sempra U.S. Gas & Power	July 2013 to March 2015
Diana L. Day	55	Chief Risk Officer	August 2019 to present
		Vice President and General Counsel	January 2019 to present
		Acting General Counsel	September 2017 to January 2019
		Vice President of Enterprise Risk Management and Compliance, SoCalGas and SDG&E	June 2014 to January 2019

⁽¹⁾ Ages are as of February 27, 2020.

INFORMATION ABOUT EXECUTIVE OFFICERS AT SOCIALGAS

Name	Age ⁽¹⁾	Positions held over last five years	Time in position
J. Bret Lane	60	Chief Executive Officer	December 2018 to present
		Principal Executive Officer	November 2018 to December 2018
		President	September 2016 to March 2019
		Chief Operating Officer	January 2014 to December 2018
Maryam S. Brown	44	President	March 2019 to present
		Vice President of Federal Government Affairs, Sempra Energy	September 2016 to March 2019
		Senior Energy and Environment Counsel, Office of the Speaker of the U.S. House of Representatives	December 2012 to September 2016
Jimmie I. Cho	55	Chief Operating Officer	January 2019 to present
		Senior Vice President of Customer Services and Gas Distribution Operations	April 2018 to January 2019
		Senior Vice President of Gas Distribution Operations, SDG&E	April 2018 to January 2019
		Senior Vice President of Gas Engineering and Distribution Operations, SoCalGas and SDG&E	October 2017 to April 2018
		Senior Vice President of Gas Operations and System Integrity, SoCalGas and SDG&E	June 2014 to October 2017
Ma L. DeMontigny	47	Vice President and Chief Financial Officer, Controller, Chief Accounting Officer and Treasurer	June 2019 to present
		Assistant Controller, Sempra Energy	August 2015 to June 2019
		U.S. Assistant Controller, National Grid	January 2013 to August 2015
David J. Barrett	55	Vice President and General Counsel	January 2019 to present
		Associate General Counsel of Gas Infrastructure, Sempra Energy	June 2018 to January 2019
		Assistant General Counsel of Gas Infrastructure, Sempra Energy	February 2017 to June 2018
		Assistant General Counsel of Real Estate and Environmental, SDG&E	October 2010 to February 2017

⁽¹⁾ Ages are as of February 27, 2020.

Employees of the Registrants

The table below shows the number of employees for each of our registrants at January 31, 2020. Employees represented by labor unions are covered under various collective bargaining agreements that generally cover wages, benefits, working conditions and other terms and conditions of employment. We did not experience any major work stoppages in 2019 and we maintain good relations with both our union and non-union employees.

NUMBER OF EMPLOYEES

	Number of employees	% of employees covered under collective bargaining agreements	% of employees covered under collective bargaining agreements expiring within one year
Sempra Energy Consolidated ⁽¹⁾	13,969	41%	9%
SDG&E	4,287	30%	30%
SoCalGas	7,596	58%	—%

⁽¹⁾ Excludes employees of equity method investees and discontinued operations.

COMPANY WEBSITES

Company website addresses are

- Sempra Energy – www.sempra.com
- SDG&E – www.sdge.com
- SoCalGas – www.socalgas.com

We make available free of charge on the Sempra Energy website, and for SDG&E and SoCalGas, via a hyperlink on their websites, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC.

The information on the websites of Sempra Energy, SDG&E and SoCalGas is not part of this report or any other report that we file with or furnish to the SEC and is not incorporated herein by reference.

ITEM 1A. RISK FACTORS

When evaluating our company and its subsidiaries, you should consider carefully the following risk factors and all other information contained in this report. These risk factors could materially adversely affect our actual results and cause such results to differ materially from those expressed in any forward-looking statements made by us or on our behalf. We may also be materially harmed by risks and uncertainties not currently known to us or that we currently deem to be immaterial. If any of the following occurs, our businesses, cash flows, results of operations, financial condition and/or prospects could be materially adversely affected. In addition, the trading prices of our securities and those of our subsidiaries could substantially decline due to the occurrence of any of these risks. These risk factors should be read in conjunction with the other detailed information concerning our company set forth in, or attached as an exhibit to, this annual report on Form 10-K, including, without limitation, the information set forth in the Notes to Consolidated Financial Statements and in "Item 7. MD&A."

Risks Related to Sempra Energy

Sempra Energy's cash flows, ability to pay dividends and ability to meet its debt obligations largely depend on the performance of its subsidiaries and entities that are accounted for as equity method investments, such as Oncor Holdings, and the ability to utilize the cash flows from those subsidiaries and equity method investments.

We are a holding company and substantially all our assets are owned by our subsidiaries and in entities accounted for as equity method investments, such as Oncor Holdings. Our ability to pay dividends and to meet our debt and other obligations depends almost entirely on cash flows from our subsidiaries and equity method investments and, in the short term, our ability to raise capital from external sources. In the long term, cash flows from our subsidiaries and equity method investments depend on their ability to successfully execute their business strategies and generate positive cash flows. In addition, the subsidiaries and other entities accounted for as equity method investments are separate and distinct legal entities that are not obligated to pay dividends or make loans or distributions to us and could be precluded from paying any such dividends or making any such loans or distributions under certain circumstances, including, without limitation, as a result of legislation, regulation, court order, contractual restrictions or in times of financial distress. The inability to access capital from our subsidiaries and entities accounted for as equity method investments as well from the capital markets could have a material adverse effect on our cash flows, financial condition and prospects.

Conditions in the financial markets and economic conditions generally may materially adversely affect us.

Our businesses are capital intensive and we rely significantly on long-term debt to fund a portion of our capital expenditures and repay outstanding debt, and on short-term borrowings to fund a portion of day-to-day business operations.

Limitations on the availability of credit and increases in interest rates or credit spreads may materially adversely affect our businesses, cash flows, results of operations, financial condition and/or prospects, as well as our ability to meet contractual and other commitments. In difficult credit market environments, we may find it necessary to fund our operations and capital expenditures at a higher cost or we may be unable to raise as much funding as we need to support new or ongoing business activities. This could cause us to reduce non-safety related capital expenditures and could increase our cost of servicing debt, both of which could significantly reduce our short-term and long-term profitability.

Other factors can affect the availability and cost of credit for our businesses as well as the terms of equity and debt financing, including:

- adverse changes to laws and regulations in the states and countries in which we operate
- the overall health of the energy industry
- volatility in natural gas or electricity prices
- credit ratings downgrades
- general economic and financial market conditions

In addition, over the past several years, California IOUs have suffered from the potential catastrophic losses resulting from the impact of the multiple wildfires that spread through Northern and Southern California (the California Wildfires). While the California Wildfires occurred in counties outside of SDG&E's electric service territory, the uncertainty about the outcomes of these matters, the possibility of catastrophic wildfires in the future and the failure of the State of California to adequately address the financial and operational risks facing California IOUs could materially and adversely impact Sempra Energy's and the California Utilities' ability to access the capital markets at rates that we believe are commercially reasonable.

We are subject to additional risk due to uncertainty relating to the calculation of LIBOR and its potential discontinuance.

Certain of our financial and commercial agreements, including variable rate indebtedness and credit facilities, as well as interest rate derivatives, incorporate LIBOR as a benchmark for establishing certain rates. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform, including discontinuation or replacement. These reforms, if implemented, will cause this benchmark to perform differently than it has performed in the past or to be discontinued entirely or may have other consequences that cannot be predicted, which could have a material adverse effect on our financial condition or results of operations or require us to seek to amend the terms of the relevant indebtedness or agreements, which may require significant additional time, effort and/or money in the form of consent payments or otherwise, and may not be possible on comparable terms or at all.

In an announcement on July 12, 2018, the Financial Conduct Authority in the United Kingdom, which regulates LIBOR, emphasized the need for market participants to transition away from LIBOR before the end of 2021. It appears likely that LIBOR will be discontinued or replaced with a different benchmark rate by 2021. A number of alternatives to LIBOR have been proposed or are being developed, but it is not clear which, if any, will be adopted at this time. Any of these alternatives may result in interest payments that are higher than expected or that do not otherwise correlate over time with the payments that would have been made on such indebtedness for the interest periods if the applicable LIBOR rate was available in its current form. More generally, any of the foregoing changes, any other changes to LIBOR as a result of national, international and other regulatory guidance and proposals for reform or other initiatives, or any further uncertainty surrounding the implementation of such changes, could have a material adverse effect on the cost of our variable rate indebtedness and/or borrowings, the effectiveness of our cash flow hedges and the cost of doing business under our commercial agreements that incorporate LIBOR.

Sempra Energy has substantial investments in Mexico and South America that expose us to foreign currency, inflation, legal, tax, economic, geopolitical and management oversight risk.

We have significant foreign operations in Mexico and South America. Our foreign operations pose complex management, foreign currency, inflation, legal, tax and economic risks. Certain of these risks differ from and potentially may be greater than those associated with our domestic businesses. All our international businesses are sensitive to geo-political uncertainties and our non-utility international businesses are sensitive to changes in the priorities and budgets of international customers, all of which may be driven by changes in their environments and potentially volatile worldwide economic conditions, and various regional and local economic and political factors, risks and uncertainties, as well as U.S. foreign policy. Foreign currency exchange and inflation rates and fluctuations in those rates may have an impact on our revenue, costs or cash flows from our international operations, which could materially adversely affect our financial performance. Our currency exposures are to the Mexican, Peruvian and Chilean currencies. Our Mexican subsidiary, IEnova, has U.S. dollar-denominated monetary assets and liabilities that give rise to Mexican currency exchange rate movements for Mexican income tax purposes. They also have significant deferred income tax assets and liabilities, which are denominated in the Mexican peso and must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. Our primary objective when we attempt to reduce foreign currency risk is to preserve the economic value of our foreign investments and to reduce earnings volatility that would otherwise occur due to exchange rate fluctuations. We may attempt to hedge material cross-currency transactions and earnings exposure through various means, including financial instruments and short-term investments. We generally do not hedge our deferred income tax assets and liabilities. Because we do not hedge our net investments in foreign countries, we are susceptible to volatility in OCI caused by exchange rate fluctuations, primarily related to our South American subsidiaries, whose functional currencies are not the U.S.

dollar. We discuss our foreign currency exposure at our Mexican subsidiaries in “Item 7. MD&A” and “Item 7A. Quantitative and Qualitative Disclosures About Market Risk.”

The current U.S. administration has called for substantial changes to trade agreements. For example, in November 2018, President Trump signed the USMCA, which, if approved by the legislatures of the U.S., Mexico and Canada, would replace NAFTA. The U.S. and Mexico approved the USMCA in January 2020 and June 2019, respectively, but Canada has yet to provide its approval. The U.S. administration has also implemented changes to U.S. immigration policy and other policies that could impact trade, including increasing tariffs. Such actions could result in changes in the Mexican, U.S. and other markets that could materially adversely affect our business, financial condition, results of operations, cash flows or prospects. In addition, if the U.S. withdraws from NAFTA, the Mexican government could implement retaliatory actions, such as the imposition of restrictions or import fees on Mexican imports of natural gas from the U.S. or imports and exports of electricity to and from the U.S. Any of these actions by either or both governments could adversely affect imports and exports between Mexico and the U.S. and negatively impact the U.S. and Mexican economies and the companies with whom we conduct business in Mexico, which could materially adversely affect our business, financial condition, results of operations, cash flows, or prospects.

We may be unable to realize the anticipated benefits from our plan to divest certain of our assets and businesses as part of our capital rotation plan.

In 2019, we completed the divestiture of all our U.S. solar and wind assets and certain non-utility natural gas storage assets in the southeast U.S. Additionally, we entered into agreements to sell our South American businesses, which we expect to close in the first half of 2020, subject to a number of closing conditions. There can be no assurance that the pending sales will be completed. If we do not successfully manage our current capital rotation plan, any expected efficiencies and benefits might be delayed or not realized, and our results of operations and business could be materially adversely affected.

The TCJA may materially adversely affect our financial condition, results of operations and cash flows, the value of investments in our common stock, preferred stock and debt securities.

The TCJA significantly changed the IRC, including taxation of U.S. corporations by, among other things, reducing the U.S. corporate income tax rate, altering the expensing of capital expenditures, limiting interest deductions, adopting elements of a territorial tax system, assessing a one-time deemed repatriation tax on cumulative undistributed earnings of U.S.-owned foreign entities at the time of enactment and introducing certain anti-base erosion provisions. While the U.S. Department of the Treasury has issued final regulations for various sections of the IRC, certain aspects of the legislation are still subject to interpretation and will require implementing regulations by the U.S. Department of the Treasury, as well as state tax authorities, which could lessen or increase adverse impacts. In addition, the regulatory treatment of the impacts of this legislation may be subject to the discretion of the FERC and state public utility commissions.

Although it is unclear when or how capital markets, the FERC or state public utility commissions may respond to the TCJA, we expect that certain financial metrics used by credit rating agencies, such as our funds from operations-to-debt percentage, will be negatively impacted as a result of an anticipated decrease in required income tax reimbursement payments to us from our domestic utility subsidiaries due to the decrease in the U.S. statutory corporate income tax rate. Certain provisions of the TCJA, such as 100% expensing of certain capital expenditures and impacts on utilization of our NOLs, may influence how we fund capital expenditures, the timing of capital expenditures and possible redeployment of capital through sales or monetization of assets, the timing of repatriation of foreign earnings and the use of equity financing to reduce our future use of debt, although there can be no assurance that these strategies will reduce any potential adverse impact from these provisions of the TCJA. In addition, although the deductibility of our interest cost is not limited for the current year, future earnings may be affected based on our method of allocation across our businesses.

It is also uncertain whether additional avenues will evolve for companies to manage the adverse aspects of this legislation. We believe that these strategies, to the extent available and if successfully applied, could lessen any such negative impacts on us, although there can be no assurance in this regard.

We discuss the effects of the TCJA further in Note 8 of the Notes to Consolidated Financial Statements and in “Item 7. MD&A – Results of Operations.”

Our mandatory convertible preferred stock, as well as any additional equity securities we may sell to raise funds, may dilute the economic and voting interests of our common shareholders and may adversely affect the market value of our common stock.

In January 2018, we issued 17,250,000 shares of our series A preferred stock, and in July 2018, we issued 5,750,000 shares of our series B preferred stock, which are scheduled to convert into common stock on January 15, 2021 and July 15, 2021, respectively. We may seek to reduce our indebtedness with the proceeds from the issuance of additional shares of common stock and, possibly,

other equity securities, which, together with the conversion of the series A preferred stock and series B preferred stock, may materially dilute the voting rights and economic interests of holders of our common stock and materially adversely affect the trading price of our common stock.

Our level of indebtedness may make it more difficult for us to pay or refinance our debts or take other actions, and we may need to divert cash to fund debt service payments or issue additional equity that may materially dilute the voting rights and economic interest of holders of our common stock.

Our substantial debt service obligations due to our aggregate indebtedness could have a material adverse effect on Sempra Energy's results of operations, cash flows, financial condition and prospects by, among other things:

- making it more difficult and/or costly for us to service our debt or pay or refinance our debts as they become due, particularly during adverse economic or industry conditions;
- limiting our flexibility to pursue other strategic opportunities or react to changes in our business and the industry sectors in which we operate;
- requiring a substantial portion of our available cash to be used for debt service payments, including interest, thereby reducing the availability of our cash to fund working capital, capital expenditures, development projects, acquisitions, dividend payments and other general corporate purposes, which could hinder our prospects for growth and the market price of our common stock, preferred stock and debt securities, among other things;
- requiring that additional materially adverse terms, conditions or covenants be placed on us under our debt instruments, which covenants might limit additional borrowings; and
- imposing specific restrictions on uses of our assets, as well as prohibiting or limiting our ability to create liens, pay dividends, receive distributions from our subsidiaries, redeem or repurchase our stock or make investments, any of which could hinder our access to capital markets and limit our ability to carry out our capital expenditure program.

We are committed to maintaining our credit ratings at investment grade. To maintain these credit ratings, we may reduce the amount of our outstanding indebtedness with the proceeds from the issuance of additional shares of common stock or other equity securities. Additional equity issuances may dilute the voting rights and economic interests of holders of our common stock. There can be no assurance that we will be able to issue additional shares of our common stock or other equity securities with terms that we consider acceptable or at all, or that we will be able to reduce the amount of our outstanding indebtedness, should we elect to do so, to a level that allows us to maintain our investment grade credit ratings, which may have a material adverse effect on Sempra Energy's cash flows, financial condition, results of operations and/or prospects.

Certain credit rating agencies may downgrade our credit ratings or place those ratings on negative outlook.

Credit rating agencies routinely evaluate Sempra Energy and the California Utilities, and their ratings are based on a number of factors, including the increased risk of wildfires in California, perceived supportiveness of the regulatory environment affecting utility operations, including delays and difficulties in obtaining recovery, or the denial of recovery, for wildfire-related costs, ability to generate cash flows, level of indebtedness, overall financial strength, including credit metrics, diversification beyond the regulated utility business (in the case of Sempra Energy), and the status of certain capital projects, as well as other factors beyond our control, such as the state of the economy and our industry generally. Downgrades and factors causing downgrades of one or both of the California Utilities can have a material impact on Sempra Energy's credit ratings. Downgrades, as well as the factors causing such downgrades, of Sempra Energy's credit ratings could imply diminished credit support available to our subsidiaries. Accordingly, downgrades of Sempra Energy's credit ratings can also have a material impact on the credit ratings of our subsidiaries, including the California Utilities.

While the current Moody's, S&P and Fitch (collectively, the Rating Agencies) issuer credit ratings for Sempra Energy, SDG&E and SoCalGas are investment grade, there is no assurance that these credit ratings will not be downgraded.

For Sempra Energy, the Rating Agencies have noted that the following events, among other things, could lead to negative ratings actions:

- delays at the Cameron LNG project and the impact on financial credit metrics;
- construction of LNG liquefaction projects and the impact on business mix and financial credit metrics over time;
- Sempra Energy's failure to meet certain financial credit metrics;
- the CPUC does not effectively implement the more supportive prudency standard associated with the Wildfire Legislation; or
- a ratings downgrade at SDG&E and/or SoCalGas.

For SDG&E, the Rating Agencies have noted that the following events, among other things, could lead to negative ratings actions:

- the CPUC does not effectively implement the more supportive prudency standard associated with the Wildfire Legislation;

- a consistent weakening of SDG&E's financial metrics;
- catastrophic wildfires caused by California electric IOUs that participate in the Wildfire Fund, which could exhaust the fund considerably earlier than expected; or
- a ratings downgrade at Sempra Energy.

For SoCalGas, the Rating Agencies have noted that the following events, among other things, could lead to negative ratings actions:

- SoCalGas' credit metrics do not improve materially after implementation of the GRC and cost of capital decisions finalized in 2019;
- SoCalGas experiences increased business risk, weakening its standalone business risk profile;
- deterioration of, or uncertainty in, the political or regulatory environment for local natural gas distribution companies operating in California; or
- a ratings downgrade at Sempra Energy.

A downgrade of Sempra Energy's or either of its California Utilities' credit ratings may materially and adversely affect the market prices of Sempra Energy's equity and debt securities, the interest rates at which borrowings are made and debt securities and commercial paper are issued, and the various fees on credit facilities. This could make it significantly more costly for Sempra Energy, SDG&E, SoCalGas and Sempra Energy's other subsidiaries to borrow money, to issue debt securities and to raise certain other types of capital and/or complete additional financings. Such negative credit rating actions, as well as the reasons for such actions could materially and adversely affect our cash flows, results of operations and financial condition and the market price of, and our ability to pay the principal of and interest on, our debt securities.

Dividend requirements associated with our mandatory convertible preferred stock subject us to certain risks.

In January 2018, we issued 17,250,000 shares of our series A preferred stock, and in July 2018, we issued 5,750,000 shares of our series B preferred stock. Any future payments of cash dividends, and the amount of any cash dividends we pay, on our series A preferred stock and our series B preferred stock will depend on, among other things, our financial condition, capital requirements and results of operations, and the ability of our subsidiaries and equity method investees to distribute cash to us, as well as other factors that our board of directors may consider relevant. Any failure to pay scheduled dividends on our mandatory convertible preferred stock when due would have a material adverse impact on the market price of our mandatory convertible preferred stock, our common stock and our debt securities and would prohibit us, under the terms of our mandatory convertible preferred stock, from paying cash dividends on or repurchasing shares of our common stock (subject to limited exceptions) until such time as we have paid all accumulated and unpaid dividends on the mandatory convertible preferred stock.

The terms of the series A preferred stock and series B preferred stock generally provide that if dividends on any shares of the mandatory convertible preferred stock have not been declared and paid for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods, the holders of shares of mandatory convertible preferred stock, voting together as a single class, will be entitled to elect a total of two additional members of our board of directors, subject to certain terms and limitations described in the certificate of determination applicable to the mandatory convertible preferred stock.

Our business could be negatively affected as a result of actions of activist shareholders.

While we strive to maintain constructive, ongoing communications with all our shareholders, and welcome their views and opinions with the goal of enhancing value for all our shareholders, activist shareholders may, from time to time, engage in proxy solicitations or advance shareholder proposals, or otherwise attempt to effect changes and assert influence on our board of directors and management. Responding to proposals by activist shareholders would require us to incur significant legal and advisory fees, proxy solicitation expenses (in the case of a proxy contest) and administrative and associated costs and require significant time and attention by our board of directors and management, diverting their attention from the pursuit of our business strategy.

Any perceived uncertainties as to our future direction and control, our ability to execute on our strategy, or changes to the composition of our board of directors or senior management team arising from proposals by activist shareholders or a proxy contest could lead to the perception of a change in the direction of our business or instability that may be exploited by our competitors and/or other activist shareholders, result in the loss of potential business opportunities, and make it more difficult to pursue our strategic initiatives or attract and retain qualified personnel and business partners, any of which could have an adverse effect, which may be material, on our business and operating results.

Actions such as those described above could cause significant fluctuations in the trading prices of our common stock and our preferred stock, based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business.

Risks Related to All Sempra Energy Businesses

Severe weather conditions, natural disasters, pandemics, accidents, equipment failures, explosions or acts of terrorism could materially adversely affect our businesses, financial condition, results of operations, cash flows and/or prospects.

Like other major industrial facilities, ours may be damaged by severe weather conditions, natural disasters such as fires, earthquakes, tornadoes, hurricanes, tsunamis, floods, mudslides, accidents, equipment failures, explosions or acts of terrorism. Because we are in the business of using, storing, transporting and disposing of highly flammable and explosive materials, as well as radioactive materials, and operating highly energized equipment, the risks such incidents may pose to our facilities and infrastructure, as well as the risks to the surrounding communities, are substantially greater than the risks such incidents may pose to a typical business. The facilities and infrastructure that we own or in which we have interests that may be subject to such incidents include, but are not limited to:

- natural gas, propane and ethane pipelines, storage and compressor facilities
- electric transmission and distribution
- power generation plants, including renewable energy and natural gas-fired generation
- marine and inland ethane and liquid fuels, LNG, and LPG facilities, terminals and storage
- nuclear power facilities, nuclear fuel and nuclear waste storage facilities (through SDG&E's 20% minority interest in SONGS, which is currently being decommissioned)

Such incidents could result in severe business disruptions, prolonged power outages, property damage, injuries or loss of life, significant decreases in revenues and earnings, and/or significant additional costs to us. Such incidents that do not directly affect our facilities may impact our business partners, supply chains and transportation, which could negatively impact construction projects and our ability to provide natural gas and electricity to our customers. Other global incidents could have similar effects to the extent they reach and impact the territories in which we operate, the customers we serve or the employees who operate our businesses. For example, the coronavirus outbreak currently affecting China and elsewhere has resulted in travel restrictions and impacts on the global economy that could affect our operations in a manner that is not presently possible to predict. Any such incident could have a material adverse effect on our businesses, financial condition, results of operations, cash flows and/or prospects.

Depending on the nature and location of the facilities and infrastructure affected, any such incident also could cause catastrophic fires; natural gas, natural gas odorant, propane or ethane leaks; releases of other GHG; radioactive releases; explosions, spills or other significant damage to natural resources or property belonging to third parties; personal injuries, health impacts or fatalities; or present a nuisance to impacted communities. Any of these consequences could lead to significant claims against us. In some cases, we may be liable for damages even though we are not at fault, such as in cases where the doctrine of inverse condemnation applies. We discuss how the application of this doctrine in California imposes strict liability on a utility whose equipment is determined to be a cause of a fire (meaning the utility may be found liable regardless of fault) below under "Risks Related to the California Utilities – The Wildfire Legislation may not adequately protect SDG&E from liability from catastrophic wildfires in its service territory." Insurance coverage may significantly increase in cost or become prohibitively expensive, may be disputed by the insurers, or may become unavailable for certain of these risks or at sufficient levels, and any insurance proceeds we receive may be insufficient to cover our losses or liabilities due to the existence of limitations, exclusions, high deductibles, failure to comply with procedural requirements, and other factors, which could materially adversely affect our businesses, financial condition, results of operations, cash flows and/or prospects, as well as the trading prices of our common stock, preferred stock and debt securities.

Our businesses are subject to complex government regulations and tax requirements and may be materially adversely affected by these regulations or requirements or changes thereto.

The electric power and natural gas industries are subject to complex government regulations that from time to time undergo significant changes on the federal, state and local levels. The failure to comply with these regulations could subject us to significant fines and penalties and result in the temporary or permanent shutdown of certain facilities and operations. In addition, changes to these regulations or how these regulations are interpreted may adversely affect how we conduct our business and may subject us to higher compliance costs.

Our businesses are subject to increasingly complex accounting and tax requirements, and the regulations, laws and tariffs that affect us may change in response to economic or political conditions. Compliance with these requirements could increase our operating costs. Any new tax legislation, regulations or other interpretations in the U.S. and other countries in which we operate could materially adversely affect our tax expense and/or tax balances, and changes in tax policies could materially adversely impact our business. Changes in regulations, laws and tariffs and how they are implemented and interpreted may have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

Our operations are subject to rules relating to transactions among the California Utilities and other Sempra Energy businesses. These rules are commonly referred to as "affiliate rules," which primarily impact commodity and commodity-related transactions. These businesses could be materially adversely affected by changes in these rules or to their interpretations, or by additional CPUC or FERC rules that further restrict our ability to sell natural gas or electricity to, or to trade with, the California Utilities and with each other. Affiliate rules also restrict these businesses from entering into any such transactions with the California Utilities. Any such restrictions on or approval requirements for transactions among affiliates could materially adversely affect the LNG facilities, natural gas pipelines, electric generation facilities, or other operations of our subsidiaries, which could have a material adverse effect on our businesses, results of operations and/or prospects.

Our businesses require numerous permits, licenses, agreements and other approvals from various federal, state, local and foreign governmental agencies, and any failure to obtain or maintain them could materially adversely affect our businesses, cash flows, financial condition, results of operations and/or prospects.

The acquisition, construction, expansion, ownership, maintenance and/or operation of electric generation, transmission and distribution infrastructure; natural gas, propane and ethane pipelines and distribution and storage facilities; marine and inland ethane and liquid fuels, LNG, and LPG facilities, terminals and storage; and other projects require numerous permits, licenses, rights-of-way, franchise agreements, certificates and other approvals from federal, state, local and foreign governmental agencies, including approvals and renewals of rights-of-way over indigenous tribal land. These permits, licenses, rights-of-way, franchise agreements, certificates and other approvals may be modified, rescinded or fail to be extended by one or more of the governmental agencies and authorities that oversee our businesses or as a result of litigation. For example, SoCalGas' franchise agreements with the City of Los Angeles and Los Angeles County expire in December 2020 and June 2023, respectively. SDG&E's franchise agreement with the City of San Diego is due to expire in January 2021. Successfully maintaining or renewing any or all of these approvals could result in higher costs. Furthermore, our permits may require compliance by our underlying customers. Failure by our customers to comply with permit requirements could result in our permits being modified, suspended or rescinded. In the event one or more of these approvals were to expire or otherwise terminate, we may be required to remove the associated assets from service, construct new assets intended to bypass the impacted area, or both, and our ability to recover higher costs associated with these events cannot be assured.

Successfully coordinating and completing expansion and construction projects requires good execution from our employees and contractors, cooperation of third parties, and the absence of litigation and regulatory delay. We may invest a significant amount of money in a major capital project prior to receiving regulatory approval. If there is a delay in obtaining required regulatory approvals, if the regulatory approval is conditioned on major changes, if we fail to obtain or maintain required approvals or to comply with applicable laws or regulations, we may be precluded from constructing or operating facilities, or if management decides not to proceed with the project, we may be unable to recover any or all amounts invested in that project, which could materially adversely affect our businesses financial condition, results of operations, cash flows and/or prospects. Further, accidents beyond our control may cause us to violate the terms of conditional use permits, causing delays in projects. Any such delay or failure to obtain or maintain necessary permits, licenses, certificates and other approvals could cause our operations and prospects to materially decline, and/or our costs to materially increase, and otherwise materially adversely affect our businesses, cash flows, financial condition, results of operations and/or prospects.

Our businesses have significant environmental compliance costs, and future environmental compliance costs could have a material adverse effect on our cash flows and/or results of operations.

Our businesses are subject to extensive federal, state, local and foreign statutes, rules and regulations relating to environmental protection, including air quality, water quality and usage, wastewater discharge, solid waste management, hazardous waste disposal and remediation, conservation of natural resources, wetlands and wildlife, renewable energy resources, climate change and GHG emissions. We are required to obtain numerous governmental permits, licenses, certificates and other approvals to construct and operate our businesses. Additionally, to comply with these legal requirements, we must spend significant amounts on environmental monitoring, pollution control equipment, mitigation costs and emissions fees. Our regulated utilities may be materially adversely affected if these additional costs for projects are not recoverable in rates. In addition, we may be ultimately responsible for all on-site liabilities associated with the environmental condition of our projects and properties; in each case regardless of when the liabilities arose and whether they are known or unknown, which exposes us to risks arising from

contamination at our former or existing facilities or with respect to offsite waste disposal sites that have been used in our operations. In the case of our California and other regulated utilities, some of these costs may not be recoverable in rates. Our facilities, including those in our JVs, are subject to laws and regulations that have been the subject of increased enforcement activity with respect to power generation facilities. Failure to comply with applicable environmental laws, regulations and permits may subject our businesses to substantial penalties and fines and/or significant curtailments of our operations, which could materially adversely affect our cash flows and/or results of operations.

Increasing international, national, regional and state-level environmental concerns as well as related new or proposed legislation and regulation may have substantial negative effects on our operations, operating costs and the scope and economics of proposed expansions, which could have a material adverse effect on our results of operations, cash flows and/or prospects. In particular, state-level laws and regulations, as well as potential state, national and international legislation and regulation relating to the control and reduction of GHG emissions, may materially limit or otherwise materially adversely affect our operations. For example, SB 100 requires each California utility, including SDG&E, to procure 50% of its annual electric energy requirements from renewable energy sources by 2026, and 60% by 2030. SB 100 also creates the policy of meeting all the State of California's retail electricity supply with a mix of RPS-eligible and zero-carbon resources by 2045, for a total of 100% clean energy. The law also includes stipulations that this policy not increase carbon emissions elsewhere in the western grid and not allow resource shuffling, and requires that the CPUC, CEC, CARB and other state agencies incorporate this into all relevant planning. Our California Utilities may be materially adversely affected if these additional costs are not recoverable in rates. Even if recoverable, the effects of existing and proposed GHG emission reduction standards may cause rates to increase to levels that substantially reduce customer demand and growth and may have a material adverse effect on the California Utilities' cash flows. SDG&E may also be subject to significant penalties and fines if certain mandated renewable energy goals are not met.

In addition, existing and future laws, orders and regulations regarding mercury, nitrogen and sulfur oxides, particulates, methane or other emissions could result in requirements for additional monitoring, pollution monitoring and control equipment, safety practices or emission fees, taxes or penalties that could materially adversely affect our results of operations and/or cash flows. Moreover, existing rules and regulations may be interpreted or revised in ways that may materially adversely affect our results of operations and/or cash flows.

Our businesses, results of operations, financial condition and/or cash flows may be materially adversely affected by the outcome of litigation against us.

Sempra Energy and its subsidiaries are defendants in numerous lawsuits and arbitration proceedings, including in connection with the Aliso Canyon natural gas storage facility natural gas leak. We have spent, and continue to spend, substantial amounts of money and time defending these lawsuits and proceedings, and in related investigations and regulatory proceedings. We discuss pending proceedings in Note 16 of the Notes to Consolidated Financial Statements. The uncertainties inherent in lawsuits, arbitrations and other legal proceedings make it difficult to estimate with any degree of certainty the costs and effects of resolving these matters. In addition, juries have demonstrated a willingness to grant large awards, including punitive damages, in personal injury, product liability, property damage and other claims. Accordingly, actual costs incurred may differ materially from insured or reserved amounts and may not be recoverable, in whole or in part, by insurance or in rates from our customers, which in each case could materially adversely affect our businesses, results of operations, financial condition and/or cash flows.

We cannot and do not attempt to fully hedge our assets or contract positions against changes in commodity prices. In addition, for those contract positions that are hedged, our hedging procedures may not mitigate our risk as planned.

To reduce financial exposure related to commodity price fluctuations, we may enter into contracts to hedge our known or anticipated purchase and sale commitments, inventories of natural gas and LNG, natural gas storage and pipeline capacity and electric generation capacity. As part of this strategy, we may use forward contracts, physical purchase and sales contracts, futures, financial swaps, and options. We do not hedge the entire exposure to market price volatility of our assets or our contract positions, and the extent of the coverage to these exposures varies over time. To the extent we have unhedged positions, or if our hedging strategies do not work as planned, fluctuating commodity prices could have a material adverse effect on our results of operations, cash flows and/or financial condition. Certain of the contracts we may use for hedging purposes are subject to fair value accounting. Such accounting may result in gains or losses in earnings for those contracts. In certain cases, these gains or losses may not reflect the associated losses or gains of the underlying position being hedged.

Risk management procedures may not prevent or mitigate losses.

Although we have in place risk management and control systems that use advanced methodologies to quantify and manage risk, these systems may not prevent material losses. Risk management procedures may not always be followed as intended by our businesses or may not work as planned. In addition, daily value-at-risk and loss limits are based on historic price movements. If prices significantly or persistently deviate from historic prices, the limits may not protect us from significant losses. As a result of

these and other factors, there is no assurance that our risk management procedures will prevent or mitigate losses that would materially adversely affect our results of operations, cash flows and/or financial condition.

The operation of our facilities depends on good labor relations with our employees.

Several of our businesses have entered into and have in place collective bargaining agreements with different labor unions. Our collective bargaining agreements are generally negotiated on a company-by-company basis. Any failure to reach an agreement on new labor contracts or to negotiate these labor contracts might result in strikes, boycotts or other labor disruptions. Labor disruptions, strikes or significant negotiated wage and benefit increases, whether due to union activities, employee turnover or otherwise, could have a material adverse effect on our businesses, results of operations and/or cash flows.

In addition to general information and cyber risks that all large corporations face (e.g. malware, malicious intent by insiders and inadvertent disclosure of sensitive information), we face evolving cybersecurity risks associated with protecting sensitive and confidential customer information, smart grid infrastructure, and natural gas pipeline and storage infrastructure.

Existing business technologies and the deployment of new business technologies represent a large-scale opportunity for attacks on our information systems and confidential customer information, as well as on the integrity of the energy grid and the natural gas infrastructure. Additionally, we often rely on third party vendors to deploy new business technologies and maintain, modify and update our systems, including systems that manage sensitive information. These third parties could fail to establish adequate risk management and information security measures to protect our systems and information. While our computer systems have been, and will continue to be, subjected to computer viruses or other malware, unauthorized access attempts, and cyber- or phishing-attacks, to date we have not detected a material breach of cybersecurity. Addressing these risks is the subject of significant ongoing activities across Sempra Energy's businesses, including investing in risk management and information security measures to protect our systems. The cost and operational consequences of implementing, maintaining and enhancing further system protection measures could increase significantly to overcome increasingly intense, complex and sophisticated cyber risks. Despite our best efforts, our businesses may not be fully insulated from cyber-attacks and system disruptions. An attack on our information systems, the integrity of the energy grid, our pipelines and distribution and storage infrastructure or one of our facilities, or unauthorized access to confidential customer information, could result in energy delivery service failures, financial and reputational loss, violations of privacy laws, customer dissatisfaction and litigation, any of which, in turn, could have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

In the ordinary course of business, Sempra Energy and its subsidiaries collect and retain sensitive information, including personal identification information about customers and employees, customer energy usage and other information. The theft, damage or improper disclosure of sensitive electronic data can subject us to penalties for violation of applicable privacy laws, subject us to claims from third parties, require compliance with notification and monitoring regulations, and harm our reputation. Sempra Energy maintains cyber liability insurance, but this insurance is limited in scope and subject to exceptions, conditions and coverage limitations and may not cover any or even a substantial portion of the costs associated with the consequences of personal, confidential or proprietary information being compromised and there is no guarantee that the insurance that we do maintain will continue to be available at rates that we believe are commercially reasonable.

Further, as seen with recent cyber-attacks around the world, the goal of a cyber-attack may be primarily to inflict large-scale harm on a company and the places where it operates. Any such cyber-attack could cause widespread disruptions to our operating, financial and administrative systems, including the destruction of critical information and programming that could materially adversely affect our business operations and the integrity of the power grid, negatively impact our ability to produce accurate and timely financial statements or comply with ongoing disclosure obligations or other regulatory requirements, and/or release confidential information about our company and our customers, employees and other constituents, any of which could lead to sanctions or negatively affect the general perception of our business in the financial markets and which could have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

Risks Related to the California Utilities

The California Utilities are subject to extensive regulation by state, federal and local legislative and regulatory authorities, which may materially adversely affect us.

The CPUC regulates the California Utilities' rates, except SDG&E's electric transmission rates which are regulated by the FERC. The CPUC also regulates, among other matters, the California Utilities':

- conditions of service
- sales of securities
- rates of return

- capital structure
- rates of depreciation
- long-term resource procurement

The CPUC conducts various reviews and audits of utility operations, safety standards and practices, compliance with CPUC regulations and standards, affiliate relationships and other matters. These reviews and audits may result in disallowances, fines and penalties that could materially adversely affect our financial condition, results of operations and/or cash flows. SoCalGas and SDG&E may be subject to penalties or fines related to their operation of natural gas pipelines and storage and, for SDG&E, electric operations, under regulations concerning natural gas pipeline safety and citation programs concerning both gas and electric safety, which could have a material adverse effect on their results of operations, financial condition and/or cash flows. We discuss various CPUC proceedings relating to the California Utilities' rates, costs, incentive mechanisms and performance-based regulation in Notes 4, 15 and 16 of the Notes to Consolidated Financial Statements.

The CPUC periodically approves the California Utilities' rates based on authorized capital expenditures, operating costs, including income taxes, and an authorized rate of return on investments, as well as settlements, while incorporating a risk-based decision-making framework. Delays by the CPUC on decisions authorizing recovery or denying recovery, after-the-fact reasonableness reviews with unclear standards, authorizations for less than full recovery or rejection of their settlements may adversely affect the working capital, cash flows and financial condition of each of the California Utilities. If the California Utilities receive an adverse CPUC decision and/or actual capital expenditures and/or operating costs were to exceed the amounts approved by the CPUC, our results of operations, financial condition, cash flows and/or prospects could be materially adversely affected.

SoCalGas and SDG&E have significantly invested and continue to invest in major programs, such as PSEP, under an approved CPUC framework. However, the total investment to date is substantially subject to CPUC reasonableness review. Although we believe these costs have been prudently incurred, the standards applied by the CPUC could result in the disallowance of a portion of these incurred costs, which could materially and adversely affect SDG&E's, SoCalGas' and Semptra Energy's results of operations, financial condition and cash flows.

In California, there are laws that establish rules governing, among other subjects, communications between CPUC officials, CPUC staff and regulated utilities. Rules and processes around *ex parte* communications could result in delayed decisions, increased investigations, enforcement actions and penalties. In addition, the CPUC or other parties may initiate investigations of past communications between public utilities and CPUC officials and staff that could result in reopening completed proceedings for reconsideration.

The FERC regulates electric transmission rates, the transmission and wholesale sales of electricity in interstate commerce, transmission access, the rates of return on investments in electric transmission assets, and other similar matters involving SDG&E.

The California Utilities may be materially adversely affected by new legislation, regulations, decisions, orders or interpretations of the CPUC, the FERC or other regulatory bodies. In addition, existing legislation or regulations may be revised or reinterpreted. New, revised or reinterpreted legislation, regulations, decisions, orders or interpretations could change how the California Utilities operate, could affect their ability to recover various costs through rates or adjustment mechanisms, or could require them to incur substantial additional expenses.

Our California Utilities are also affected by the activities of organizations such as TURN, Utility Consumers' Action Network, Sierra Club and other stakeholder, advocacy and activist groups. To the extent that these groups are successful in influencing our California Utilities' operations, this could have a material adverse effect on the California Utilities' businesses, cash flows, results of operations, financial condition and/or prospects.

The Wildfire Legislation may not adequately protect SDG&E from liability from catastrophic wildfires in its service territory and we may be unable to obtain sufficient insurance coverage at a reasonable cost or at all.

In July 2019, the Governor of California signed the Wildfire Legislation into law, which addresses certain important issues related to catastrophic wildfires in the State of California and their impact on electric IOUs. Investor-owned gas distribution utilities such as SoCalGas are not covered by this legislation. The issues addressed include wildfire mitigation, cost recovery standards and requirements, a wildfire fund, a cap on liability, and the establishment of a wildfire safety board. The Wildfire Legislation did not change the doctrine of inverse condemnation, which imposes strict liability on a utility (meaning that the utility may be found liable regardless of fault) whose equipment is determined to be a cause of a fire. Rather, the Wildfire Legislation established a revised legal standard for the recovery of wildfire costs (Revised Prudent Manager Standard) and established the Wildfire Fund designed to provide liquidity to participating California electric IOUs to pay IOU wildfire-related claims in the event that the

governmental agency responsible for determining causation determines the applicable IOU's equipment caused the ignition of a wildfire, primary insurance coverage is exceeded and certain other conditions are satisfied. We are unable to predict whether the Wildfire Legislation will be effectively implemented and its impact on SDG&E's ability to recover certain costs and expenses in cases where SDG&E's equipment is determined to be a cause of a fire, and specifically in the context of the application of inverse condemnation.

We have experienced increased costs and difficulties in obtaining insurance coverage for wildfires that could arise from the California Utilities' operations, particularly SDG&E's operations. In addition, the insurance that has been obtained for wildfire liabilities may not be sufficient to cover all losses that we may incur, or may not be available in sufficient amounts to meet the primary insurance required by the Wildfire Legislation of \$1 billion. Uninsured losses may not be recoverable in customer rates. Increases in the cost of insurance may be challenged when we seek cost recovery. California courts have invoked the doctrine of inverse condemnation for wildfire damages, whereby if a utility company's equipment, such as its electric distribution and transmission lines, are determined to be a cause of one or more fires, the utility could be held strictly liable for damages, as well as attorneys' fees, without having been found negligent. As a result of the strict liability standard applied to wildfires, recent losses recorded by insurance companies, and the risk of an increase in the number and size of wildfires, insurance for wildfire liabilities may not be available or may be available only at rates that are prohibitively expensive. In addition, even if insurance for wildfire liabilities is available, it may not be available in such amounts as are necessary to cover potential losses. A loss which is neither fully insured nor can be recovered in customer rates, such as the CPUC decision denying SDG&E's recovery of costs for the 2007 wildfires, could materially adversely affect Sempra Energy's and one or both of the California Utilities' financial condition, cash flows and results of operations. We are unable to predict whether we would be allowed to recover in rates or from the Wildfire Fund the costs of any uninsured losses.

We monitor weather conditions continuously to help ensure the safe operation of our facilities during the periods of elevated wildfire ignition risk. Should conditions become extreme, we may de-energize certain of our facilities as a last resort to minimize this safety risk to the public. Such "public safety power shutoffs" could be subject to increased scrutiny by regulators and law makers, and may lead to increased risk of penalties and liability for damages. There can be no assurance that such costs would be recoverable in rates.

Extreme weather conditions, changing weather patterns and population growth in areas of the State of California in environments with historically higher risk of wildfires could materially affect the California Utilities' and Sempra Energy's business, financial condition, results of operations, liquidity, and cash flows.

Frequent and more severe drought conditions, unseasonably warm temperatures, very low humidity and stronger winds have increased the degree and prevalence of wildfires in California including in SDG&E's and SoCalGas' service territories, which could place third party property and our electric and natural gas infrastructure in jeopardy and reduce the availability of hydroelectric generators. This could result in temporary power shortages in SDG&E's and SoCalGas' service territories and/or catastrophic destruction of third-party property for which SDG&E or SoCalGas may be liable and unable to recover from ratepayers or may have inadequate insurance coverage. The Wildfire Legislation, signed into law in July 2019, includes a number of measures primarily intended to address certain important issues related to catastrophic wildfires in the State of California, including wildfire mitigation, cost recovery standards and requirements, a wildfire fund, a cap on liability, and the establishment of a wildfire safety board. However, in the event of a significant wildfire involving SDG&E equipment, the standards prescribed by the Wildfire Legislation may not be applied by the State of California consistently or the Wildfire Fund could be completely exhausted due to fires in other California IOUs' service territories, by fires in SDG&E's service territory or by a combination thereof, which could impact our ability to timely access capital necessary to address, in whole or in part, inverse condemnation and other liabilities. In addition, the State of California has been subject to housing shortages such that certain local land use policies and forestry management practices have been relaxed in certain cases to allow for the construction and development of residential and commercial projects in high risk fire areas that may not have the infrastructure or contingency plans necessary to address such risk.

Severe rainstorms and associated high winds in our service territories, as well as flooding and mudslides where vegetation has been destroyed as result of human modification or wildfires, could damage our electric and natural gas infrastructure, resulting in increased expenses, including higher maintenance and repair costs and interruptions in natural gas and electricity delivery services. As a result, these events can have significant financial consequences, including regulatory penalties and disallowances if the California Utilities encounter difficulties in restoring service to their customers on a timely basis. Further, the cost of storm restoration efforts may not be fully recoverable through the regulatory process. Any such events could have a material adverse effect on our businesses, financial condition, results of operations and cash flows.

Events or conditions caused by climate change, including risk of wildfires, severe weather conditions and flooding caused by rising sea levels, could have a greater impact on the California Utilities' operations than the California Utilities currently

anticipate. If the CPUC fails to adjust the California Utilities' rates to reflect the impact of events or conditions caused by climate change or if a major fire is determined to be caused by our equipment, Sempra Energy's and the California Utilities' business, financial condition, results of operations, liquidity, and cash flows could be materially affected.

The California Utilities are subject to risks arising from the operation, maintenance and upgrades of their natural gas and electricity infrastructure and information technology systems, which, if they materialize, could adversely affect Sempra Energy's and the California Utilities' financial results.

The California Utilities own and operate electric transmission and distribution facilities and natural gas transmission, distribution and storage facilities, which are, in many cases, interconnected and/or managed by information technology systems. The California Utilities undertake substantial capital investment projects to construct, replace, improve and upgrade these facilities and systems, but while these capital investment projects are in process and even once completed, there is a risk of, among other things, potential breakdown or failure of equipment or processes due to aging infrastructure and information technology systems, human error in operations or maintenance, shortages of or delays in obtaining equipment, material and labor, operational restrictions resulting from environmental requirements and governmental interventions, and performance below expected levels. In addition, as discussed above, weather-related incidents and other natural disasters can disrupt generation, transmission and distribution delivery systems. Because our transmission facilities are interconnected with those of third parties, the operation of our facilities could also be adversely affected by unexpected or uncontrollable events occurring on the systems of such third parties.

Additional risks associated with the ability of the California Utilities to safely and reliably operate, maintain, improve and upgrade their facilities and systems, many of which are beyond the California Utilities' control, include:

- challenges associated with meeting customer demand for natural gas and/or electricity that results in customer curtailments, controlled/uncontrolled gas outages, gas surges back into homes, serious personal injury or loss of life;
- a prolonged widespread electrical black-out that results in damage to the California Utilities' equipment or damage to property owned by customers or other third parties;
- inadequate emergency preparedness plans and the failure to respond effectively to a catastrophic event that could lead to public or employee harm or extended outages; severe weather events such as storms, tornadoes, floods, drought, earthquakes, tsunamis, fires, pandemics, solar events, electromagnetic events or other natural disasters;
- the release of hazardous or toxic substances into the air, water or soil, including gas leaks from natural gas pipelines or storage facilities; and
- attacks by third parties, including cyber-attacks, acts of terrorism, vandalism or war.

The occurrence of any of these events could affect demand for natural gas or electricity; cause unplanned outages; damage the California Utilities' assets and/or operations; damage the assets and/or operations of third parties on which the California Utilities rely; damage property owned by customers or others; and cause personal injury or death. As a result, the California Utilities could incur costs to purchase replacement power, to repair assets and restore service, and to compensate third parties. Any such events could materially adversely affect Sempra Energy's and one or both of the California Utilities' financial condition, cash flows and results of operations.

SoCalGas has incurred and may continue to incur significant costs, expenses and other liabilities related to the natural gas leak at its Aliso Canyon natural gas storage facility and mitigating local community environmental impacts from the Leak, some or a substantial portion of which may not be recoverable through insurance, and SoCalGas also may incur significant liabilities for damages, restitution, fines, penalties and other costs, and emissions mitigation activities as a result of this incident, some or a significant portion of which may not be recoverable through insurance or may exceed insurance coverage.

In October 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility in Los Angeles County. As described in "Civil and Criminal Litigation" and "Regulatory Proceedings" in Note 16 of the Notes to Consolidated Financial Statements, numerous lawsuits, investigations and regulatory proceedings have been initiated in response to the Leak, resulting in significant costs.

Civil and Criminal Litigation

As of February 21, 2020, 393 lawsuits, including approximately 36,000 plaintiffs, are pending against SoCalGas related to the Leak, some of which have also named Sempra Energy. All these cases, other than a matter brought by the Los Angeles County District Attorney and the federal securities class action, are coordinated before a single court in the LA Superior Court for pretrial management. The court has scheduled an initial trial for June 24, 2020 for a small number of randomly selected individual plaintiffs. For a more detailed description of the civil and criminal lawsuits brought against us, see Note 16 of the Notes to Consolidated Financial Statements.

Five shareholder derivative actions alleging breach of fiduciary duties have been filed against certain officers and directors of Sempra Energy and/or SoCalGas, four of which were joined in a Consolidated Shareholder Derivative Complaint in August 2017. These complaints were dismissed, and shareholders filed an amended complaint in February 2020. A federal securities class action alleging violation of the federal securities laws also was filed against Sempra Energy and certain of its officers which is on appeal following dismissal by the court.

A misdemeanor criminal complaint was filed by the LA County District Attorney's office, as to which SoCalGas entered a settlement that was approved by the LA Superior Court but is subject to appeal by certain residents. Additional litigation, including by public entities, and criminal complaints may be filed against us in the future related to the Leak or our responses thereto.

The costs of defending against or resolving the civil and criminal lawsuits, and any compensatory, statutory or punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, if awarded or imposed, as well as the costs of mitigating the actual natural gas released, could be significant. If any of these costs are not covered by insurance (including any costs in excess of applicable policy limits), if there are significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Investigations, Orders and Additional Regulation

In January 2016, CalGEM and the CPUC selected Blade to conduct, under their supervision, an independent analysis of the technical root cause of the Leak, to be funded by SoCalGas. The root cause analysis was released in May 2019 and concluded that SoCalGas had complied with gas storage regulations in existence at the time of the Leak and that the related compliance activities conducted prior to the Leak did not find indications of a casing integrity issue, but that there were also measures, though not required by the gas storage regulations at the time, that could have been taken to aid in the early identification of corrosion and that, in the opinion of Blade, would have prevented or mitigated the Leak. In addition, CalGEM is investigating the Leak.

In June 2019, the CPUC opened an OII to consider penalties against SoCalGas for the Leak. The first phase will consider whether SoCalGas violated Public Utilities Code Section 451 or other laws, CPUC orders or decisions, rules or requirements, whether SoCalGas engaged in unreasonable and/or imprudent practices with respect to its operation and maintenance of the Aliso Canyon natural gas storage facility or its related record-keeping practices, whether SoCalGas cooperated sufficiently with the Safety Enforcement Division (SED) and Blade during the pre-formal investigation, and whether any of the mitigation proposed by Blade should be implemented to the extent not already done. In November 2019, SED, based largely on the Blade report, alleged a total of 330 violations, asserting that SoCalGas violated California Public Utilities Code Section 451 and failed to cooperate in the investigation and to keep proper records. Hearings in the first phase of the OII are scheduled to begin in April 2020. The second phase will consider whether SoCalGas should be sanctioned for the Leak and what penalties, if any, should be imposed for any violations proven in the first phase, as well as determine the amounts of various costs incurred by SoCalGas and other parties in connection with the Leak and the ratemaking treatment or other disposition of such costs.

Higher operating costs and additional capital expenditures incurred by SoCalGas as a result of new laws, orders, rules and regulations arising out of this incident or our responses thereto could be significant and may not be recoverable through insurance or in customer rates. In addition, any of these investigations could result in findings of violations of laws, orders, rules or regulations as well as fines, sanctions and other penalties. SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations may be materially adversely affected by any such new laws, orders, rules and regulations or by these investigations.

Natural Gas Storage Operations and Reliability

Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility, with a storage capacity of 86 Bcf (representing 63% of SoCalGas' natural gas storage capacity), is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. As a result of the Leak, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility beginning in October 2015 and, following a comprehensive safety review and authorization by CalGEM and the CPUC's Executive Director, resumed limited injection operations in July 2017. In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility while still maintaining energy and electric reliability for the region.

If the Aliso Canyon natural gas storage facility were to be permanently closed, or if future cash flows were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31,

2019, the Aliso Canyon natural gas storage facility had a net book value of \$769 million. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and SoCalGas' and Sempra Energy's results of operations, cash flows and financial condition may be materially adversely affected.

Insurance and Estimated Costs

Excluding directors' and officers' liability insurance, we have at least four kinds of insurance policies that together we estimate provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. At December 31, 2019, SoCalGas' estimate of costs related to the Leak of \$1,116 million includes \$1,086 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. Costs not included in the \$1,116 million cost estimate could be material. We have received insurance payments for many of our costs, including temporary relocation and associated processing costs, control-of-well expenses, costs of the government-ordered response to the Leak, legal costs and lost gas.

If any costs are not covered by insurance (including any costs in excess of applicable policy limits), if there are significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As described in "Civil and Criminal Litigation" above, the actions against us seek compensatory, statutory and punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, which except for the amounts paid or estimated to settle certain actions, are not included in the \$1,116 million cost estimate as it is not possible at this time to predict the outcome of these actions or reasonably estimate the amount of damages, restitution or civil, administrative or criminal fines, sanctions, penalties or other costs. This cost estimate also does not include future legal costs to defend litigation, and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate. Furthermore, the cost estimate does not include certain other costs incurred by Sempra Energy through December 31, 2019 associated with defending shareholder derivative lawsuits. Costs not included in the \$1,116 million cost estimate could be material. There can be no assurance that we will be successful in obtaining insurance coverage for these costs under the applicable policies, and to the extent we are not successful in obtaining coverage or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Additional Information

We discuss Aliso Canyon natural gas storage facility matters further in Note 16 of the Notes to Consolidated Financial Statements.

Natural gas pipeline safety assessments may not be fully or adequately recovered in rates.

The California Utilities test or replace natural gas transmission pipelines located in populated areas that either have not been pressure tested or lack sufficient documentation of a pressure test, to enhance existing valve infrastructure and to retrofit pipelines to allow for the use of in-line inspection technology, referred to as SoCalGas' and SDG&E's PSEP.

The CPUC established criteria to determine the amounts related to PSEP that may be recovered from ratepayers and the processes for recovery of such amounts, including providing that such costs are subject to a reasonableness review. In the future, certain PSEP costs may be subject to recovery as determined by separate regulatory filings with the CPUC, including GRC filings. PSEP-related proceedings before the CPUC regarding the California Utilities' reasonableness review and cost recovery requests are often challenged by intervening parties. In the future, consumer advocacy groups may similarly challenge the California Utilities' petitions for recovery and recommend disallowances in whole or in part with respect to applications to recover PSEP costs, including through GRC filings.

From 2011 through 2019, SoCalGas and SDG&E have invested and have or plan to seek recovery for approximately \$1.8 billion and \$445 million, respectively, in PSEP, with substantial additional expenditures planned. As of December 31, 2019, SoCalGas and SDG&E have received approval for recovery of \$1.3 billion and \$15 million, respectively. On January 30, 2020 SoCalGas and SDG&E reached a settlement with certain intervenors in the 2018 reasonableness review proceeding, which would resolve all but one issue regarding the period of recovery. The settlement is subject to CPUC approval. Beginning in 2019, the majority of investments in PSEP projects are being recovered in base rates as approved in the 2019 GRC FD. If the CPUC denies or significantly delays rate recovery for PSEP and other gas pipeline safety costs incurred by SoCalGas and SDG&E, it could materially adversely affect the respective company's cash flows, financial condition, results of operations and prospects.

The California Utilities are subject to increasingly stringent safety standards and the potential for significant penalties if regulators deem either SDG&E or SoCalGas to be out of compliance.

SB 291 requires the CPUC to develop and maintain a safety enforcement program that includes procedures for monitoring, data tracking and analysis, and investigations, and delegates citation authority to CPUC staff personnel under the direction of the CPUC Executive Director. Under the enforcement program, the maximum penalty is \$50,000 per offense. Each day of an ongoing violation may be counted as an additional offense. CPUC staff has authority to issue citations up to an administrative limit of \$8 million per citation under either program and such citations may be appealed to the CPUC. Although citations issued under these enforcement programs do include an administrative limit, penalties issued by the CPUC can exceed this limit, having exceeded \$1.5 billion in one instance for an unrelated third party.

If the CPUC or its staff determine that either of SDG&E's or SoCalGas' operations and practices are not in compliance with applicable safety standards and operating procedures, the corrective or mitigation actions required to become in conformance, if not sufficiently funded in customer rates, and any penalties imposed, could materially adversely affect that company's cash flows, financial condition, results of operations and prospects.

The failure by the CPUC to continue reforms of SDG&E's rate structure, including the implementation of charges independent of consumption volume and reforms to reduce NEM rate subsidies, could have a material adverse effect on SDG&E's business, cash flows, financial condition, results of operations and/or prospects.

The current electric residential rate structure in California is primarily based on consumption volume, which places a higher rate burden on customers with higher electric use while subsidizing lower use customers.

The NEM program is an electric billing tariff mechanism designed to promote the installation of on-site renewable generation (primarily solar installations). Under NEM, qualifying customer-generators receive a full retail rate for the energy they generate that is fed to the utility's power grid. This occurs during times when the customer's generation exceeds their own energy usage (wholesale rates apply only if a customer's annual generation exceeds their annual consumption). Under this structure, NEM customers do not pay their proportionate share of the cost of maintaining and operating the electric transmission and distribution system, subject to certain limitations, while they still receive electricity from the system when their self-generation is inadequate to meet their electricity needs. The unpaid NEM costs are subsidized by customers not participating in NEM. Accordingly, as higher electric-use residential customers switch to NEM and self-generate energy, the burden on the remaining customers increases, which in turn encourages more self-generation, further increasing rate pressure on existing customers.

In July 2015, the CPUC adopted a decision that provided a framework for rates that we believe are more transparent, fair and sustainable. The framework provides for a minimum monthly bill, fewer rate tiers and a gradual reduction in the differences between the tiered rates, and directs the utilities to pursue expanded time-of-use rates. The framework will be fully implemented in 2020 and should result in relief for higher-use customers and a rate structure that better aligns rates with actual costs to serve customers. The decision also establishes a process for utilities to seek implementation of a fixed charge for residential customers in 2020, subject to certain conditions. We believe the establishment of a charge independent of consumption volume for residential customers may become more critical to help ensure rates are fair for all customers, including the NEM issue discussed above. Distributed energy resources and energy efficiency initiatives could generally reduce delivered volumes, increasing the importance of a fixed charge. In addition, the continuing increase of solar installations and other forms of self-generation adversely impacts the reliability of the electric transmission and distribution system and could increase fixed costs.

If the CPUC fails to continue to reform SDG&E's rate structure to maintain reasonable, cost-based electric rates that are competitive with alternative sources of power and adequate to maintain the reliability of the electric transmission and distribution system, such failure could lead to the disallowance of recovery for our costs, including power procurement costs, operating or capital costs, or the imposition of fines and penalties. Any of these developments could have a material adverse effect on SDG&E's and Sempra Energy's business, cash flows, financial condition, results of operations and/or prospects.

The electricity industry is undergoing significant change, including increased deployment of distributed energy resources, technological advancements, and political and regulatory developments.

Electric utilities in California are experiencing increasing deployment of distributed energy resources, such as solar, energy storage, energy efficiency and demand response technologies. This growth will eventually require modernization of the electric distribution grid to, among other things, accommodate increasing two-way flows of electricity and increase the grid's capacity to interconnect distributed energy resources. The CPUC is conducting proceedings to: evaluate various demonstration projects and pilots; implement changes to the planning and operation of the electric distribution grid in order to prepare for higher penetration of distributed energy resources; consider future grid modernization and grid reinforcement investments; evaluate if traditional grid investments can be deferred by distributed energy resources; and if feasible, what, if any, compensation would be appropriate; and clarify the role of the electric distribution grid operator. These proceedings may result in new regulations, policies and/or

operational changes that could materially adversely affect SDG&E's and Sempra Energy's businesses, cash flows, financial condition, results of operations and/or prospects.

SDG&E provides bundled electric procurement service through various resources that are typically procured on a long-term basis. While SDG&E currently provides such procurement service for most of its customer load, customers do have the ability to receive procurement service from a load serving entity other than SDG&E, through programs such as DA and CCA. DA is currently limited by a cap based on gigawatt hours. Utility customers could also receive procurement through CCA, if the customer's local jurisdiction (city) offers such a program. Several local political jurisdictions, including the City and County of San Diego and other municipalities, are considering implementing or are implementing a CCA, which could result in SDG&E providing procurement service for less than half of its current customer load as early as 2021. When customers are served by another load serving entity, SDG&E no longer procures electricity for this departing load and the associated costs of the utility's procured resources could then be borne by SDG&E's remaining bundled procurement customers. State law requires that customers opting to have a CCA procure their electricity must absorb the cost of above-market electricity procurement commitments already made by SDG&E on their behalf. If adequate mechanisms are not implemented to ensure compliance with state law, remaining bundled customers of SDG&E could potentially experience large increases in rates for commodity costs under commitments made on behalf of CCA customers prior to their departure, which may not be fully recoverable in rates by SDG&E. If legislative, regulatory or legal action were taken to prevent the timely recovery of these procurement costs or if mechanisms are not in place to ensure compliance with state law, the unrecovered costs could have a material adverse effect on SDG&E's and Sempra Energy's cash flows, financial condition and results of operations.

Natural gas and natural gas storage has increasingly been the subject of political and public scrutiny, including a desire by some to further limit or eliminate reliance on natural gas as an energy source.

California legislators and stakeholder, advocacy and activist groups have expressed a desire to further limit or eliminate reliance on natural gas as an energy source by advocating increased use of renewable energy and electrification in lieu of the use of natural gas. The CPUC initiated an OIR to update gas reliability standards, determine the regulatory changes necessary to improve coordination between natural gas utilities and natural gas-fired electric generators, and implement a long-term planning strategy to manage the state's transition away from natural gas-fueled technologies to meet California's decarbonization goals. The OIR will be conducted in three phases. The first phase will address reliability standards. The second phase will address coordination between natural gas utilities and natural gas-fired electric generators. The third phase will implement a long-term planning strategy. Comments on the scope of the new OIR were due on February 26, 2020. A substantial reduction or the elimination of natural gas as an energy source in California could have a material adverse effect on SDG&E's, SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

SDG&E may incur substantial costs and liabilities as a result of its partial ownership of a nuclear facility that is being decommissioned.

SDG&E has a 20% ownership interest in SONGS, formerly a 2,150-MW nuclear generating facility near San Clemente, California, that is in the process of being decommissioned by Edison, the majority owner of SONGS. SDG&E, and each of the other owners, is responsible for financing its share of expenses and capital expenditures, including decommissioning activities. Although the facility is being decommissioned, SDG&E's ownership interest in SONGS continues to subject it to the risks of owning a partial interest in a nuclear generation facility, which include:

- the potential release of a radioactive material including from a natural disaster such as an earthquake or tsunami that could cause catastrophic harm to human health and the environment;
- the potential harmful effects on the environment and human health resulting from the prior 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 operations and the decommissioning of the facility; and
- uncertainties with respect to the technological and financial aspects of decommissioning the facility.

In addition, SDG&E maintains NDTs for providing funds to decommission SONGS. Trust assets have been generally invested in equity and debt securities, which are subject to significant market fluctuations. A decline in the market value of trust assets or an adverse change in the law regarding funding requirements for decommissioning trusts could increase the funding requirements for these trusts, which in each case may not be fully recoverable in rates. Furthermore, CPUC approval is required in order to make withdrawals from these trusts. CPUC approval for certain expenditures may be denied by the CPUC altogether if the CPUC determines that the expenditures are unreasonable. Finally, decommissioning may be materially more expensive than we currently anticipate and therefore decommissioning costs may exceed the amounts in the trust funds. Rate recovery for overruns would require CPUC approval, which may not occur.

Interpretations of tax regulations could impact access to NDT funds for reimbursement of spent nuclear fuel management costs. In December 2016, the IRS and the U.S. Department of Treasury issued proposed regulations that clarify the definition of “nuclear decommissioning costs.” These proposed regulations will be effective prospectively once they are finalized. SDG&E is awaiting the adoption of, or additional refinement to, the proposed regulations before determining whether the proposed regulations will allow SDG&E to timely access the NDT funds for reimbursement or payment of the spent fuel management costs incurred in 2017 and subsequent years. Until the litigation against the DOE by Edison and SDG&E seeking recovery of spent fuel management costs is resolved or IRS regulations regarding spent fuel management costs are confirmed to apply, SDG&E expects to continue to pay for its share of such spent fuel management costs without reimbursement from the NDT. If SDG&E is unable to obtain timely access to the trusts for these costs, SDG&E’s cash flows could be negatively impacted.

The occurrence of any of these events could result in a substantial reduction in our expected recovery and have a material adverse effect on SDG&E’s and Sempra Energy’s businesses, cash flows, financial condition, results of operations and/or prospects.

Risks Related to Our Interest in Oncor

Certain ring-fencing measures, governance mechanisms and commitments limit our ability to influence the management and policies of Oncor.

Various “ring-fencing” measures are in place to enhance Oncor’s separateness from its owners and to mitigate the risk that Oncor would be negatively impacted in the event of a bankruptcy or other adverse financial developments affecting its owners. This ring-fence creates both legal and financial separation between Oncor Holdings, Oncor and their subsidiaries, on the one hand, and Sempra Energy and its affiliates and subsidiaries, on the other hand.

In accordance with the ring-fencing measures, governance mechanisms and commitments we made in connection with the Merger, we and Oncor are subject to various restrictions, including, among others:

- seven members of Oncor’s 13-person board of directors will be independent directors in relation to Sempra Energy and any other direct or indirect owners of Oncor. With respect to the non-independent directors, two will be designated by Sempra Energy, two will be appointed by Oncor’s minority owner, TTI, and two will be current or former Oncor officers;
- Oncor may not pay any dividends if a majority of its independent directors or a minority member director determines that it is in the best interests of Oncor to retain such amounts;
- Oncor will not pay dividends if that payment would cause its debt-to-equity ratio to exceed the debt-to-equity ratio approved by the PUCT;
- if Oncor’s senior secured debt by any of the three major rating agencies falls below BBB (or Baa2 for Moody’s), Oncor will suspend dividends and other distributions (except for contractual tax payments), unless otherwise allowed by the PUCT;
- there must be maintained certain “separateness measures” that reinforce the financial separation of Oncor from Sempra Energy, including a requirement that dealings between Oncor and Sempra Energy must be on an arm’s-length basis, limitations on affiliate transactions and a prohibition on pledging Oncor assets or stock for any entity other than Oncor;
- a majority of Oncor’s independent directors must approve any annual or multi-year budget if the aggregate amount of capital expenditures or O&M in such budget is more than a 10% increase or decrease from the corresponding amounts of such expenditures in the budget for the preceding fiscal year or multi-year period, as applicable; and
- Sempra Energy will continue to hold indirectly at least 51% of the ownership interests in Oncor Holdings and Oncor for at least five years following the closing of the Merger, unless otherwise specifically authorized by the PUCT.

As a result, we do not control Oncor Holdings or Oncor, and we have limited ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. We have limited representation on the Oncor Holdings and Oncor board of directors, which are controlled by independent directors. The Oncor directors have considerable autonomy and, as described in our commitments, have a duty to act in the best interest of Oncor consistent with the approved ring-fence and Delaware law, which may be contrary to our best interests or be in opposition to our preferred strategic direction for Oncor. To the extent that they take actions that are not in our interests, the financial condition, results of operations and/or prospects of Sempra Energy may be materially adversely affected.

If Oncor fails to respond to challenges in the electric utility industry, including changes in regulation, its results of operations and financial condition could be adversely affected, and this could materially adversely affect us.

Because Oncor is regulated by both U.S. federal and Texas state authorities, it has been and will continue to be affected by legislative and regulatory developments. The costs and burdens associated with complying with these regulatory requirements and adjusting Oncor’s business to legislative and regulatory developments may have a material adverse effect on Oncor. Moreover,

potential legislative changes, regulatory changes or other market or industry changes may create greater risks to the predictability of utility earnings generally. If Oncor does not successfully respond to these changes, it could suffer a deterioration in its results of operations, financial condition and/or prospects, which could materially adversely affect our results of operations, financial condition and/or prospects.

Oncor's operations are capital intensive and it could have liquidity needs that may require us to make additional investments in Oncor.

Oncor's business is capital intensive, and it relies on external financing as a significant source of liquidity for its capital requirements. In the past, Oncor has financed a substantial portion of its cash needs with the proceeds from indebtedness. In the event that Oncor fails to meet its capital requirements, we may elect to make additional investments in Oncor. Similarly, if Oncor is unable to access sufficient capital to finance its ongoing needs, we may elect to make additional investments in Oncor which could be substantial and which would reduce the cash available to us for other purposes, could increase our indebtedness and could ultimately materially adversely affect our results of operations, financial condition and/or prospects. In that regard, our commitments to the PUCT prohibit us from making loans to Oncor. As a result, if Oncor requires additional financing and cannot obtain it from other sources, we may elect to make a capital contribution, rather than a loan, to Oncor.

Sempra Energy could incur substantial tax liabilities if EFH's 2016 spin-off of Vistra from EFH is deemed to be taxable.

As part of its ongoing bankruptcy proceedings, in 2016, EFH distributed all the outstanding shares of common stock of its subsidiary Vistra Energy Corp. (formerly TCEH Corp. and referred to herein as Vistra) to certain creditors of TCEH LLC (the spinoff), and Vistra became an independent, publicly traded company. Vistra's spin-off from EFH was intended to qualify for partially tax-free treatment to EFH and its stockholders under Sections 368(a)(1)(G), 355 and 356 of the IRC (collectively referred to as the Intended Tax Treatment). In connection with and as a condition to the spin-off, EFH received a private letter ruling from the IRS regarding certain issues relating to the Intended Tax Treatment of the spin-off, as well as tax opinions from counsel to EFH and Vistra regarding certain aspects of the spin-off not covered by the private letter ruling.

In connection with the signing and closing of the Merger, EFH sought and received a supplemental private letter ruling from the IRS and Sempra Energy and EFH received tax opinions from their respective counsel that generally provide that the Merger will not affect the conclusions reached in, respectively, the IRS private letter ruling and tax opinions issued with respect to the spin-off described above. Similar to the IRS private letter ruling and opinions issued with respect to the spin-off, the supplemental private letter ruling is generally binding on the IRS and any opinions issued with respect to the Merger are based on factual representations and assumptions, as well as certain undertakings, made by Sempra Energy and EFH, now Sempra Texas Holdings Corp. and a subsidiary of Sempra Energy. If such representations and assumptions are untrue or incomplete, any such undertakings are not complied with, or the facts upon which the IRS supplemental private letter ruling or tax opinions (which will not impact the IRS position on the transactions) are based are different from the actual facts relating to the Merger, the tax opinions and/or supplemental private letter ruling may not be valid and as a result, could be successfully challenged by the IRS. If it is determined that the Merger causes the spin-off not to qualify for the Intended Tax Treatment, Sempra Energy, through its ownership of Sempra Texas Holdings Corp., could incur substantial tax liabilities, which would materially reduce and potentially eliminate the value associated with our indirect investment in Oncor and could have a material adverse effect on the results of operations, financial condition and/or prospects of Sempra Energy and on the market value of our common stock, preferred stock and debt securities. Should the IRS invalidate the private letter ruling and/or the supplemental private letter ruling, Sempra Texas Holdings Corp. has administrative appeal rights including the right to challenge any adverse IRS position in court.

Risks Related to our Businesses Other Than the California Utilities and Our Interest in Oncor

Business development activities may not be successful and projects under construction may not commence operation as scheduled, be completed within budget or operate at expected levels, which could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

The acquisition, development, construction and expansion of LNG liquefaction, marine and inland ethane and liquid fuels, and LPG terminals and storage; natural gas, propane and ethane pipelines and distribution and storage facilities; electric generation, transmission and distribution infrastructure; and other energy infrastructure projects involve numerous risks. We may be required to spend significant sums for preliminary engineering, permitting, fuel supply, resource exploration, legal and other expenses before we can determine whether a project is feasible, economically attractive, or capable of being built.

Success in developing a project is contingent upon, among other things:

- negotiation of satisfactory EPC agreements
- negotiation of satisfactory LNG offtake and equity agreements

- negotiation of supply, natural gas and LNG sales agreements or firm capacity service agreements and PPAs
- timely receipt of required governmental permits, licenses and other authorizations and maintenance of these authorizations
- our counterparties' financial or other ability to fulfill their contractual commitments
- timely implementation and satisfactory completion of construction
- obtaining adequate and reasonably priced financing for the project

Successful completion of a project may be materially adversely affected by, among other factors:

- unforeseen engineering problems
- construction delays due to adverse weather conditions, work stoppages, equipment unavailability and other events and contractor performance shortfalls
- our counterparties' financial or other inability to fulfill their contractual commitments
- failure to obtain or maintain required governmental permits, licenses and other authorizations
- litigation
- unsettled property rights

If we are unable to complete a development project or if we have substantial delays or cost overruns, this could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

The operation of existing and future facilities also involves many risks, including the breakdown or failure of liquefaction, regasification and storage facilities, electric generation, transmission and distribution infrastructure or other equipment or processes, labor disputes, fuel interruption, environmental contamination and operating performance below expected levels. In addition, weather-related incidents and other natural disasters can disrupt liquefaction, generation, regasification, storage, transmission and distribution systems. The occurrence of any of these events could lead to our facilities being idled for an extended period of time or our facilities operating well below expected capacity levels, which may result in lost revenues or increased expenses, including higher maintenance costs and penalties. Such occurrences could materially adversely affect our businesses, financial condition, cash flows, results of operations and/or prospects.

The design, development and construction of the Cameron LNG liquefaction facility involves numerous risks and uncertainties.

We have a 50.2% interest in Cameron LNG JV, which is building an LNG export facility consisting of three liquefaction trains designed to a total nameplate capacity of 13.9 Mtpa of LNG with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day.

Cameron LNG JV has a lump-sum, turnkey EPC contract with a JV between CB&I, LLC (as assignee of CB&I Shaw Constructors, Inc.), a wholly owned subsidiary of McDermott International, Inc., and Chiyoda International Corporation, a wholly owned subsidiary of Chiyoda Corporation. If the EPC contractor becomes unwilling or unable to perform according to the terms and timetable of the EPC contract, the project could face substantial construction delays and potentially significantly increased costs. In January 2020, McDermott International, Inc. filed for bankruptcy protection under Chapter 11 of the U.S. bankruptcy code. McDermott International, Inc. has stated that it expects all of its projects, including the three-train liquefaction project at Cameron LNG JV, to continue on an uninterrupted basis. However, we cannot be certain the Cameron LNG JV project will not be interrupted. If the contractor defaults under the EPC contract due to the bankruptcy of McDermott International, Inc. or for any other reason, such default could result in Cameron LNG JV's engagement of a substitute contractor. The inability to complete the project in a timely manner or within our current expectations, cost overruns, and the other risks described above could have a material adverse effect on our business, results of operations, cash flows, financial condition, credit ratings and/or prospects.

If the estimated construction, financing and other project costs for the facility substantially exceed our contingency associated with the project budget adopted at the time of our final investment decision, we may have to make material additional, unexpected cash contributions. The majority of the investment in the liquefaction project is project-financed and the balance is provided by the project partners. Any failure by the project partners to make their required investments on a timely basis could result in project delays and could materially adversely affect the development of the project. In addition, Sempra Energy has guaranteed a maximum of up to \$4.0 billion related to the project financing and financing-related agreements. These guarantees terminate upon Cameron LNG JV achieving "financial completion" of the initial three-train liquefaction project, including all three trains achieving commercial operation and meeting certain operational performance tests. Cameron LNG JV's Loan Facility Agreements and related finance documents contain events of default customary for such financings, including a failure to achieve financial completion of the project by a financial completion deadline date of September 30, 2021 (with up to an additional 365 days extension beyond such date permitted in cases of force majeure). A delay in construction that results in a failure to achieve financial completion of the project by this financial completion deadline date would therefore result in an event of default under

Cameron LNG JV's financing and a potential demand on Sempra Energy's guarantees. We anticipate that the guarantees will be terminated approximately nine months after all three trains achieve commercial operation. If, due to Cameron LNG JV's failure to satisfy the financial completion criteria, we are required to repay some or all of the \$4.0 billion under our guarantees, any such repayments could have a material adverse effect on our business, results of operations, cash flows, financial condition and/or prospects.

We face many challenges to develop and complete our contemplated LNG export facilities.

In addition to the three-train Cameron LNG liquefaction facility described above, we are evaluating several other LNG export development opportunities. Sempra LNG is in discussions with the co-owners of Cameron LNG JV regarding the potential expansion of up to two additional liquefaction trains at the Cameron LNG liquefaction facility, is developing a proposed natural gas liquefaction project near Port Arthur, Texas, and, through a JV agreement with IEnova, is developing a proposed natural gas liquefaction project at IEnova's existing ECA LNG Regasification facility in Baja California, Mexico to be developed in two phases (a mid-scale project referred to as ECA LNG JV Phase 1 and a large-scale project referred to as ECA LNG JV Phase 2). Each of these contemplated projects face numerous risks and must overcome significant hurdles before we can reach a final investment decision and proceed with construction. Further, a shift in the supply of natural gas could depress LNG prices and the cost advantages of exporting LNG from the U.S. In addition, global oil prices and their associated current and forward projections could reduce the demand for natural gas in some sectors and cause a corresponding reduction in projected global demand for LNG. This could result in increased competition among those developing projects in an environment of declining LNG demand, such as the Sempra Energy-sponsored export initiatives. Such reduction in natural gas demand could also occur from higher penetration of alternative fuels in new power generation, which could also lead to increased competition among the LNG suppliers for the declining LNG demand. At certain moderate levels, oil prices could also make LNG projects in other parts of the world more feasible and competitive with LNG projects from North America, thus increasing supply and the competition for the available LNG demand. A decline in natural gas prices outside the U.S. (which in many foreign countries are based on the price of crude oil) may also materially adversely affect the relative pricing advantage that has existed in recent years in favor of domestic natural gas prices (based on Henry Hub pricing).

In connection with these LNG export development opportunities, which we discuss further in "Item 7. MD&A – Capital Resources and Liquidity – Sempra LNG," we have entered into or may enter into Heads of Agreements, MOUs and/or similar agreements, all of which are or will be nonbinding and do not or will not obligate any of the parties to execute any agreements or participate in any such opportunities.

Any decisions by Sempra Energy or our potential counterparties to proceed with binding agreements with respect to the potential development (or expansion) of our liquefaction projects will require, among other things, obtaining customer commitments to purchase LNG, completion of project assessments and achieving other necessary internal and external approvals of each party. In addition, all our proposed projects are subject to a number of risks and uncertainties, including the receipt of a number of permits and approvals; finding suitable additional partners and customers; obtaining financing and incentives; negotiating and completing suitable commercial agreements, including equity acquisition and governance agreements, natural gas supply and transportation agreements, LNG sale and purchase agreements and construction contracts; and reaching a final investment decision.

Furthermore, there are a number of potential new projects under construction or in the process of development by various project developers in North America, in addition to ours, and given the projected global demand for LNG, the vast majority of these projects likely will not be completed. With respect to our Port Arthur, Texas project, this is a greenfield site, and therefore it may not have the advantages often associated with brownfield sites. The ECA LNG Regasification facility and ECA LNG JV proposed liquefaction project in Mexico are subject to on-going land and permit disputes that could make project financing, as well as finding suitable partners and customers, difficult. In addition, while we have completed the regulatory process for an LNG export facility in the U.S., the regulatory process in Mexico and the overlay of U.S. regulations for natural gas exports to an LNG export facility in Mexico are not well developed. There can be no assurance that a facility could be constructed without facing significant legal challenges and uncertainties, which in turn could make project financing, as well as finding suitable partners and customers for ECA LNG JV Phase 2, difficult. Finally, the ECA LNG Regasification facility currently has profitable long-term regasification contracts for 100% of the regasification facility's capacity through 2028, making the decision to pursue ECA LNG JV Phase 2 dependent in part on whether the investment in a large-scale liquefaction project would, over the long term, be more beneficial than continuing to supply regasification services under our existing contracts.

There can be no assurance that our contemplated LNG export facilities will be completed, and our inability to complete one or more of our contemplated LNG export facilities could have a material adverse effect on our future cash flows, results of operations and prospects.

Domestic and international hydraulic fracturing operations are subject to political, economic and other uncertainties that could increase the costs of doing business, impose additional operating restrictions or delays, and adversely affect production of LNG and reduce or eliminate LNG export opportunities and demand.

Hydraulic fracturing operations in the U.S. and outside the U.S. face political and economic risks and other uncertainties with respect to their operations. Several states have adopted or are considering adopting regulations to impose more stringent permitting, public disclosure or well construction requirements on hydraulic fracturing operations. In addition to state laws, some local municipalities have adopted or are considering adopting land use restrictions, such as city ordinances, that may restrict the performance of or prohibit the well drilling in general and/or hydraulic fracturing in particular. We cannot predict whether additional federal, state, local or international laws or regulations applicable to hydraulic fracturing will be enacted in the future and, if so, what actions any such laws or regulations would require or prohibit. If additional levels of regulation or permitting requirements were imposed on hydraulic fracturing operations, natural gas prices in North America could rise, which in turn could materially adversely affect the relative pricing advantage that has existed in recent years in favor of domestic natural gas prices (based on Henry Hub pricing). Increased regulation or difficulty in permitting of hydraulic fracturing, and any corresponding increase in domestic natural gas prices, could materially adversely affect demand for LNG exports and our ability to develop commercially viable LNG export facilities beyond the three-train Cameron LNG facility currently under construction.

Our businesses are exposed to market risks, including fluctuations in commodity prices, and our businesses, financial condition, results of operations, cash flows and/or prospects may be materially adversely affected by these risks.

We buy energy-related commodities from time to time for LNG facilities or power plants to satisfy contractual obligations with customers, in regional markets and other competitive markets in which we compete. Our revenues and results of operations could be materially adversely affected if the prevailing market prices for natural gas, LNG, electricity or other commodities that we buy change in a direction or manner not anticipated and for which we had not provided adequately through purchase or sale commitments or other hedging transactions. Unanticipated changes in market prices for energy-related commodities can result from multiple factors, such as adverse weather conditions, commodity production levels, and energy and environmental regulations and legislation.

When our businesses enter into fixed-price long-term contracts to provide services or commodities, they are exposed to inflationary pressures such as rising commodity prices and interest rate risks.

Sempra Mexico and Sempra LNG generally endeavor to secure long-term contracts with customers for services and commodities to optimize the use of their facilities, reduce volatility in earnings and support the construction of new infrastructure. However, if these contracts are at fixed prices, the profitability of the contract may be materially adversely affected by inflationary pressures, including rising operational costs, costs of labor, materials, equipment and commodities, and rising interest rates that affect financing costs. We may try to mitigate these risks by using variable pricing tied to market indices, anticipating an escalation in costs when bidding on projects, providing for cost escalation, providing for direct pass-through of operating costs or entering into hedges. However, these measures, if implemented, may not ensure that the increase in revenues they provide will fully offset increases in operating expenses and/or financing costs. The failure to fully or substantially offset these increases could have a material adverse effect on our financial condition, cash flows and/or results of operations.

Increased competition and changes in trade policies could materially adversely affect us.

The markets in which we operate are characterized by numerous strong and capable competitors, many of whom have extensive and diversified development and/or operating experience (including both domestic and international) and financial resources similar to or greater than ours. Further, in recent years, the natural gas pipeline, storage and LNG market segments have been characterized by strong and increasing competition both with respect to winning new development projects and acquiring existing assets. In Mexico, despite the commissioning of many new energy infrastructure projects by the CFE and other governmental agencies in connection with energy reforms, competition for recent pipeline projects has been intense with numerous bidders competing aggressively for these projects. There can be no assurance that we will be successful in bidding for new development opportunities in the U.S. and Mexico. These competitive factors could have a material adverse effect on our business, results of operations, cash flows and/or prospects.

In addition, the current U.S. Administration has indicated its intention to revise or replace international trade agreements, such as NAFTA. In November 2018, President Trump signed the USMCA, which, if approved by the legislatures of the U.S., Mexico and Canada, would replace NAFTA. The U.S. and Mexico approved the USMCA in January 2020 and June 2019, respectively, but Canada has yet to provide its approval. A shift in U.S. trade policies could materially adversely affect our LNG development opportunities, as well as opportunities for trade between Mexico and the U.S.

We may elect not to, or may not be able to, enter into, extend or replace expiring long-term supply and sales agreements or long-term firm capacity agreements for our projects, which would subject our revenues to increased volatility and our

businesses to increased competition. Such long-term contracts, once entered into, increase our credit risk if our counterparties fail to perform or become unable to meet their contractual obligations on a timely basis due to bankruptcy, insolvency, or otherwise.

The ECA LNG Regasification facility has long-term capacity agreements with a limited number of counterparties. Under these agreements, customers pay capacity reservation and usage fees to receive, store and regasify the customers' LNG. We also may enter into short-term and/or long-term supply agreements to purchase LNG to be received, stored and regasified for sale to other parties. The long-term supply agreement contracts are expected to reduce our exposure to changes in natural gas prices through corresponding natural gas sales agreements or by tying LNG supply prices to prevailing natural gas market price indices. If the counterparties, customers or suppliers to one or more of the key agreements for the ECA LNG Regasification facility were to fail to perform or become unable to meet their contractual obligations on a timely basis, it could have a material adverse effect on our results of operations, cash flows and/or prospects.

For the three-train liquefaction facility currently under construction by Cameron LNG, Cameron LNG JV has 20-year liquefaction and regasification tolling capacity agreements in place with affiliates of TOTAL S.A., Mitsubishi Corporation and Mitsui & Co., Ltd., that subscribe for the full nameplate capacity of the facility. If the counterparties to these tolling agreements were to fail to perform or become unable to meet their contractual obligations to Cameron LNG JV on a timely basis, it could have a material adverse effect on our results of operations, cash flows and/or prospects.

Sempra Mexico's and Sempra LNG's ability to enter into or replace existing long-term firm capacity agreements for their natural gas pipeline operations are dependent on demand for and supply of LNG and/or natural gas from their transportation customers, which may include our LNG facilities. A significant sustained decrease in demand for and supply of LNG and/or natural gas from such customers could have a material adverse effect on our businesses, results of operations, cash flows and/or prospects.

The electric generation and wholesale power sales industries are highly competitive. As more plants are built and competitive pressures increase, wholesale electricity prices may become more volatile. Without the benefit of long-term power sales agreements, our revenues may be subject to increased price volatility, and we may be unable to sell the power that Sempra Mexico's facilities are capable of producing or to sell it at favorable prices, which could materially adversely affect our results of operations, cash flows and/or prospects.

Our businesses depend on counterparties, business partners, customers and suppliers performing in accordance with their agreements. If they fail to perform, we could incur substantial expenses and business disruptions and be exposed to commodity price risk and volatility, which could materially adversely affect our businesses, financial condition, cash flows, results of operations and/or prospects.

Our businesses, and the businesses that we invest in, are exposed to the risk that counterparties, business partners, customers and suppliers that owe money or commodities as a result of market transactions or other long-term agreements or arrangements will not perform their obligations in accordance with such agreements or arrangements. Should they fail to perform, we may be required to enter into alternative arrangements or to honor the underlying commitment at then-current market prices. In such an event, we may incur additional losses to the extent of amounts already paid to such counterparties or suppliers. In addition, many such agreements are important for the conduct and growth of our businesses. The failure of any of the parties to perform in accordance with these agreements could materially adversely affect our businesses, results of operations, cash flows, financial condition and/or prospects. Finally, we often extend credit to counterparties and customers. While we perform significant credit analyses prior to extending credit, we are exposed to the risk that we may not be able to collect amounts owed to us.

Certain past assertions made by the CFE and Mexican government, coupled with past arbitration requests and other statements and actions by the CFE, raise serious concerns over whether the terms of Sempra Mexico's gas pipeline contracts will be honored or disputed in arbitration. The failure by the CFE or other customers to honor the terms of Sempra Mexico's gas pipeline contracts and the inability to enter into gas pipeline contracts in the future could have a material adverse effect on Sempra Energy's cash flows, financial condition, results of operations and prospects.

Sempra Mexico's and Sempra LNG's obligations and those of their suppliers for LNG supplies are contractually subject to (1) suspension or termination for "force majeure" events beyond the control of the parties; and (2) substantial limitations of remedies for other failures to perform, including limitations on damages to amounts that could be substantially less than those necessary to provide full recovery of costs for breach of the agreements, which in either event could have a material adverse effect on our results of operations, cash flows, financial condition and/or prospects.

In addition, we may develop and/or own some projects with other equity owners and, therefore, we may not control all material decisions with respect to those projects, as is the case with the Cameron LNG JV project. To the extent that there is disagreement amongst the project equity owners with respect to certain decisions affecting such a project, the development, construction or

operation of such project may be delayed or otherwise materially adversely affected. Such a circumstance could materially adversely affect our business, financial condition, cash flows, result of operations and/or prospects.

Our businesses are subject to various legal actions challenging our property rights and permits.

We are engaged in disputes regarding our title to the properties adjacent to and properties where our ECA LNG Regasification facility and ECA LNGJV proposed liquefaction project in Mexico are located, as we discuss in Note 16 of the Notes to Consolidated Financial Statements. If we are unable to defend and retain title to the properties on which these current and proposed facilities are located, we could lose our rights to occupy and use such properties and the related facilities, which could result in breaches of one or more permits or contracts that we have entered into with respect to such facilities. In addition, our ability to construct an LNG liquefaction export facility may be hindered or halted by these disputes, and they could make project financing such a facility and finding suitable partners and customers very difficult. If we are unable to occupy and use such properties and the related facilities, it could have a material adverse effect on our businesses, financial condition, results of operations, cash flows and/or prospects.

We rely on transportation assets and services, much of which we do not own or control, to deliver natural gas and electricity.

We depend on electric transmission lines, natural gas pipelines and other transportation facilities owned and operated by third parties to:

- deliver the natural gas and electricity we sell to wholesale markets or that we use for our liquefaction facilities;
- supply natural gas to our gas storage and electric generation facilities; and
- provide retail energy services to customers.

Sempra Mexico and Sempra LNG also depend on natural gas pipelines to interconnect with their ultimate source or customers of the commodities they are transporting. Sempra Mexico and Sempra LNG also rely on specialized ships to transport LNG to their facilities and on natural gas pipelines to transport natural gas for customers of the facilities. Sempra Mexico's subsidiaries, as well as our South American businesses that are held for sale, rely on transmission lines to sell electricity to their customers. If transportation is disrupted, or if capacity is inadequate, we may be unable to sell and deliver our commodities, electricity and other services to some or all of our customers. As a result, we may be responsible for damages incurred by our customers, such as the additional cost of acquiring alternative electricity, natural gas supplies and LNG at then-current spot market rates, which could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

Our international businesses are exposed to different local, regulatory and business risks and challenges.

In Mexico, we own or have interests in natural gas distribution and transportation assets, LPG storage and transportation facilities, ethane transportation assets, electricity generation facilities, LNG facilities and ethane and liquid fuels marine and inland terminals. In Peru and Chile, we own or have interests in electric transmission, distribution and generation infrastructure and operations, which are held for sale. Developing infrastructure projects, owning energy assets and operating businesses in foreign jurisdictions subject us to significant security, political, legal, regulatory and financial risks that vary by country, including:

- changes in foreign laws and regulations, including tax and environmental laws and regulations, and U.S. laws and regulations, in each case, that are related to foreign operations;
- actions by local regulatory bodies, including setting of rates and tariffs that may be earned by our businesses;
- adverse changes in market conditions, trade restrictions, limitations on ownership in foreign countries and inadequate enforcement of regulations;
- foreign cash balances that may be unavailable to fund U.S. operations, or available only at unfavorable U.S. and/or foreign tax rates upon repatriation of such amounts or changes in tax law;
- permitting and regulatory compliance;
- adverse rulings by foreign courts or tribunals, challenges to permits and approvals, difficulty in enforcing contractual and property rights, and unsettled property rights and titles in Mexico;
- energy policy reform that may result in adverse changes to and/or difficulty in enforcing existing contracts, as we discuss below;
- expropriation or theft of assets;
- adverse changes in the stability of the governments in the countries in which we operate;
- social unrest; and
- compliance with the Foreign Corrupt Practices Act and similar laws.

In addition, the Mexican government has exercised, and continues to exercise, significant influence over the Mexican economy. Accordingly, Mexican governmental actions concerning the economy and certain governmental agencies, including the CFE

could have a significant impact on Mexican private sector entities in general and on IEnova's operations in particular. For example, the CFE and the Mexican government took certain actions in 2019 that raised serious concerns over whether the terms of Sempra Mexico's gas pipeline contracts would be honored or disputed in arbitration. IEnova and other affected natural gas pipeline developers joined the CFE and the President of Mexico's representatives in negotiations and were able to resolve the dispute, but we cannot predict whether similar disputes may arise and/or whether such disputes will be resolved on favorable terms to us, if at all. We also cannot predict the impact that the political landscape, including multiparty rule and civil disobedience, will have on the Mexican economy. Such circumstances, may materially adversely affect our cash flows, financial condition, results of operations and/or prospects in Mexico, which could have a material adverse effect on Sempra's consolidated financial statements.

We discuss litigation related to Sempra Mexico's international energy projects in Note 16 of the Notes to Consolidated Financial Statements.

Other Risks

Sempra Energy has substantial investments in and obligations arising from businesses that it does not control or manage or in which it shares control.

Sempra Energy makes investments in entities that we do not control or manage or in which we share control. As described above, SDG&E holds a 20% ownership interest in SONGS, which is in the process of being decommissioned by Edison, its majority owner. As a result of ring-fencing measures, governance mechanisms and commitments, we account for our indirect, 100% ownership interest in Oncor Holdings, which, at December 31, 2019, owns an 80.25% interest in Oncor, as an equity method investment. Sempra LNG accounts for its 50.2% interest in Cameron LNG JV under the equity method. Sempra Mexico has a 40% interest in a JV with a subsidiary of TC Energy to build, own and operate the Sur de Texas-Tuxpan natural gas marine pipeline in Mexico, a 50% interest in a renewables wind project in Baja California, and a 50% interest in the Los Ramones Norte pipeline in Mexico. Sempra Energy has an equity method investment in the RBS Sempra Commodities partnership, which is in the process of being dissolved and for which Sempra Energy is subject to certain indemnities as we discuss in Note 16 of the Notes to Consolidated Financial Statements. Any adverse resolution of matters associated with our ownership interest in the RBS Sempra Commodities partnership could have a corresponding impact on our cash flows, financial condition and results of operations.

Sempra LNG provided guarantees related to Cameron LNG JV's financing agreements, and Sempra Mexico has provided loans to JVs in which they have investments. We discuss the guarantees in Note 6 and affiliate loans in Note 1 of the Notes to Consolidated Financial Statements.

We have limited influence over these ventures and other businesses in which we do not have a controlling interest. In addition to the other risks inherent in these businesses, if their management were to fail to perform adequately or the other investors in the businesses were unable or otherwise failed to perform their obligations to provide capital and credit support for these businesses, it could have a material adverse effect on our results of operations, financial condition, cash flows and/or prospects. We discuss our investments further in Notes 5, 6 and 12 of the Notes to Consolidated Financial Statements.

Market performance or changes in other assumptions could require Sempra Energy, SDG&E and/or SoCalGas to make significant unplanned contributions to their pension and other postretirement benefit plans.

Sempra Energy, SDG&E and SoCalGas provide defined benefit pension plans and other postretirement benefits to eligible employees and retirees. A decline in the market value of plan assets may increase the funding requirements for these plans. In addition, the cost of providing pension and other postretirement benefits is also affected by other factors, including the assumed rate of return on plan assets, employee demographics, discount rates used in determining future benefit obligations, rates of increase in health care costs, levels of assumed interest rates and future governmental regulation. An adverse change in any of these factors could cause a material increase in our funding obligations which could have a material adverse effect on our results of operations, financial condition, cash flows and/or prospects.

Impairment of goodwill would negatively impact our consolidated results of operations and net worth.

As of December 31, 2019, Sempra Energy had approximately \$1,602 million of goodwill, which represented approximately 2.44% of the total assets on its Consolidated Balance Sheet, primarily related to the acquisitions of IEnova Pipelines and Ventika in Mexico. Goodwill is not amortized, but we test it for impairment annually on October 1 or whenever events or changes in circumstances necessitate an evaluation, which could result in our recording a goodwill impairment loss. We discuss our annual goodwill impairment testing process and the factors considered in such testing in "Item 7. MD&A – Critical

Accounting Policies and Estimates” and in Note 1 of the Notes to Consolidated Financial Statements. A goodwill impairment loss could materially adversely affect our results of operations for the period in which such charge is recorded.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own or lease land, warehouses, offices, operating and maintenance centers, shops, service facilities and equipment necessary to conduct our businesses. Each of our operating segments currently has adequate space and, if we needed more space, we believe it is readily available. We discuss properties related to our electric, natural gas and energy infrastructure operations in “Item 1. Business” and Note 1 of the Notes to Consolidated Financial Statements.

ITEM 3. LEGAL PROCEEDINGS

We are not party to, and our property is not the subject of, any material pending legal proceedings (other than ordinary routine litigation incidental to our businesses) except for the matters described in Notes 15 and 16 of the Notes to Consolidated Financial Statements, “Item 1A. Risk Factors” and “Item 7. MD&A – Capital Resources and Liquidity.”

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II.

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

MARKET INFORMATION

Sempra Energy Common Stock

Our common stock is traded on the New York Stock Exchange under the ticker symbol SRE. At February 21, 2020, there were approximately 24,151 record holders of our common stock.

SoCalGas and SDG&E Common Stock

Information concerning dividend declarations for SoCalGas and SDG&E is included in their Statements of Changes in Shareholders' Equity and Statements of Changes in Equity, respectively, set forth in the Consolidated Financial Statements.

Dividend Restrictions

The payment and the amount of future dividends for Sempra Energy, SDG&E, and SoCalGas are within the discretion of their boards of directors. The CPUC's regulation of the California Utilities' capital structures limits the amounts that the California Utilities can pay Sempra Energy in the form of loans and dividends. We discuss these matters in Note 1 of the Notes to Consolidated Financial Statements in "Restricted Net Assets" and in "Item 7. MD&A – Capital Resources and Liquidity – Dividends."

PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On September 11, 2007, the Sempra Energy board of directors authorized the repurchase of Sempra Energy common stock provided that the amounts spent for such purpose do not exceed the greater of \$2 billion or amounts spent to purchase no more than 40 million shares. No shares have been repurchased under this authorization since 2011. Approximately \$500 million remains authorized by our board of directors for the purchase of additional shares, not to exceed approximately 12 million shares.

We also may, from time to time, purchase shares of our common stock to which participants would otherwise be entitled from LTIP participants who elect to sell a sufficient number of shares in connection with the vesting of RSUs and stock options in order to satisfy minimum statutory tax withholding requirements.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SUMMARIES

The following tables present selected financial data of Sempra Energy, SDG&E and SoCalGas for the five years ended December 31, 2019. The data is derived from the audited consolidated financial statements of each company. You should read this information in conjunction with "Item 7. MD&A" and the consolidated financial statements and notes contained in this annual report on Form 10-K.

FIVE-YEAR SUMMARY OF SELECTED FINANCIAL DATA – SEMIPRA ENERGY CONSOLIDATED
(In millions, except per share amounts)

	At December 31 or for the years then ended				
	2019	2018	2017	2016	2015
Revenues:					
Utilities					
Natural gas	\$ 5,185	\$ 4,540	\$ 4,361	\$ 4,050	\$ 4,096
Electric	4,263	3,999	3,929	3,748	3,711
Energy-related businesses	1,381	1,563	1,350	829	880
Total revenues	\$ 10,829	\$ 10,102	\$ 9,640	\$ 8,627	\$ 8,687
Income from continuing operations, net of income tax	\$ 1,999	\$ 938	\$ 382	\$ 1,292	\$ 1,256
Income (loss) from discontinued operations, net of income tax	363	188	(31)	227	192
Net income	2,362	1,126	351	1,519	1,448
Earnings attributable to noncontrolling interests	(164)	(76)	(94)	(148)	(98)
Mandatory convertible preferred stock dividends	(142)	(125)	—	—	—
Preferred dividends of subsidiary	(1)	(1)	(1)	(1)	(1)
Earnings attributable to common shares	\$ 2,055	\$ 924	\$ 256	\$ 1,370	\$ 1,349
Basic EPS:					
Earnings from continuing operations	\$ 6.22	\$ 2.86	\$ 1.25	\$ 4.66	\$ 4.77
Earnings (losses) from discontinued operations	\$ 1.18	\$ 0.59	\$ (0.23)	\$ 0.82	\$ 0.66
Earnings	\$ 7.40	\$ 3.45	\$ 1.02	\$ 5.48	\$ 5.43
Diluted EPS:					
Earnings from continuing operations	\$ 6.13	\$ 2.84	\$ 1.24	\$ 4.65	\$ 4.71
Earnings (losses) from discontinued operations	\$ 1.16	\$ 0.58	\$ (0.23)	\$ 0.81	\$ 0.66
Earnings	\$ 7.29	\$ 3.42	\$ 1.01	\$ 5.46	\$ 5.37
Dividends declared per common share	\$ 3.87	\$ 3.58	\$ 3.29	\$ 3.02	\$ 2.80
Effective income tax rate	18%	(10)%	73%	22%	17%
Weighted-average rate base:					
SDG&E	\$ 10,467	\$ 9,619	\$ 8,549	\$ 8,019	\$ 7,671
SoCalGas	\$ 7,401	\$ 6,413	\$ 5,493	\$ 4,775	\$ 4,269
AT DECEMBER 31					
Current assets	\$ 3,339	\$ 3,645	\$ 3,341	\$ 3,110	\$ 2,891
Total assets	\$ 65,665	\$ 60,638	\$ 50,454	\$ 47,786	\$ 41,150
Current liabilities	\$ 9,150	\$ 7,523	\$ 6,635	\$ 5,927	\$ 4,612
Long-term debt and finance leases (excludes current portion) ⁽¹⁾	\$ 20,785	\$ 20,903	\$ 15,829	\$ 13,865	\$ 12,582
Short-term debt ⁽²⁾	\$ 5,031	\$ 3,668	\$ 2,790	\$ 2,542	\$ 1,437
Sempra Energy shareholders' equity	\$ 19,929	\$ 17,138	\$ 12,670	\$ 12,951	\$ 11,809
Common shares outstanding	291.7	273.8	251.4	250.2	248.3
Book value per common share	\$ 60.58	\$ 54.35	\$ 50.40	\$ 51.77	\$ 47.56

⁽¹⁾ Excludes discontinued operations.

⁽²⁾ Includes long-term debt due within one year and current portion of finance lease obligations. Excludes discontinued operations.

In 2019, Sempra Renewables completed the sale of its remaining U.S. wind assets and investments and recognized a pretax gain on sale of \$61 million (\$45 million after tax and NCI). In 2018, Sempra Renewables completed the sale of its U.S. operating solar assets, solar and battery storage development projects, as well as an interest in one wind facility, and recognized a pretax gain on sale of \$513 million (\$367 million after tax). We discuss the sales and related gains in Note 5 of the Notes to Consolidated Financial Statements.

In 2018, we recorded impairment charges of \$1.1 billion (\$629 million after tax and NCI) at Sempra LNG, \$200 million (\$145 million after tax) at Sempra Renewables and \$65 million at Parent and other. We discuss the impairments in Notes 5, 6 and 12 of the Notes to Consolidated Financial Statements.

In 2018, Sempra Energy completed registered public offerings of our common stock (including shares offered pursuant to forward sale agreements), series A preferred stock, series B preferred stock and long-term debt. These offerings, including settlement of a portion of the forward sale agreements, provided total net proceeds of approximately \$4.5 billion in equity and \$4.9 billion in debt. A portion of these proceeds were used to partially fund the acquisition of an indirect, 100% interest in Oncor Holdings, which we account for as an equity method investment. We discuss the acquisition and equity method investment further in Notes 5 and 6 of the Notes to Consolidated Financial Statements.

In 2017, Sempra Energy's income tax expense included \$870 million related to the impact of the TCJA, as we discuss in Note 8 of the Notes to Consolidated Financial Statements, "Item 7. MD&A – Income Taxes" and "Item 7. MD&A – Discontinued Operations."

In 2017, we recorded a charge of \$208 million (after tax) for the write-off of SDG&E's wildfire regulatory asset, which we discuss in Note 16 of the Notes to Consolidated Financial Statements.

In 2017 and 2016, Sempra Mexico recognized impairment charges of \$47 million (after NCI) and \$90 million (after tax and NCI), respectively, related to assets held for sale at TdM. We discuss the impairments in Notes 5 and 12 of the Notes to Consolidated Financial Statements.

In 2016, we recorded a \$350 million (after tax and NCI) noncash gain associated with the remeasurement of Sempra Mexico's equity interest in IEnova Pipelines (formerly known as GdC).

In 2016, IEnova completed a private offering in the U.S. and outside of Mexico and a concurrent public offering in Mexico of common stock.

We discuss litigation and other contingencies in Note 16 of the Notes to Consolidated Financial Statements.

FIVE-YEAR SUMMARIES OF SELECTED FINANCIAL DATA – SDG&E AND SOCALGAS

(Dollars in millions)

	At December 31 or for the years then ended				
	2019	2018	2017	2016	2015
SDG&E					
Statement of Operations Data:					
Operating revenues	\$ 4,925	\$ 4,568	\$ 4,476	\$ 4,253	\$ 4,219
Operating income	1,313	1,010	709	976	1,045
Earnings attributable to common shares	767	669	407	570	587
Balance Sheet Data:					
Total assets	\$ 20,560	\$ 19,225	\$ 17,844	\$ 17,719	\$ 16,515
Long-term debt and finance leases (excludes current portion)	6,306	6,138	5,335	4,658	4,455
Short-term debt ⁽¹⁾	136	372	473	191	218
SDG&E shareholder's equity	7,100	6,015	5,598	5,641	5,223
SoCalGas:					
Statement of Operations Data:					
Operating revenues	\$ 4,525	\$ 3,962	\$ 3,785	\$ 3,471	\$ 3,489
Operating income	956	591	627	551	548
Dividends on preferred stock	1	1	1	1	1
Earnings attributable to common shares	641	400	396	349	419
Balance Sheet Data:					
Total assets	\$ 17,077	\$ 15,389	\$ 14,159	\$ 13,424	\$ 12,104
Long-term debt and finance leases (excludes current portion)	3,788	3,427	2,485	2,982	2,481
Short-term debt ⁽¹⁾	636	259	617	62	9
SoCalGas shareholders' equity	4,748	4,258	3,907	3,510	3,149

⁽¹⁾ Includes long-term debt due within one year and current portion of finance lease obligations.

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

OVERVIEW

In 2018, we set out to simplify Sempra Energy's business model and sharpen our focus on building North America's premier energy infrastructure company. Our 2019 operational and financial results reflect our focus on executing this strategy:

- The California Utilities received a constructive final GRC decision for the 2019 revenue requirement and attrition year adjustments for 2020 and 2021, and a final decision in the 2020 cost of capital proceeding.
- SDG&E contributed to the Wildfire Fund that was created through the Wildfire Legislation that addresses certain issues related to catastrophic wildfires in California.
- We supported Oncor's acquisition of InfraREIT and acquired an indirect 50% interest in Sharyland Holdings in Texas.
- Cameron LNG JV's Train 1 commenced commercial operation.
- We sold our non-utility natural gas storage assets in the southeast U.S. (comprised of Mississippi Hub and Bay Gas) and our remaining U.S. wind assets and investments. In April 2019, our Sempra Renewables segment ceased to exist.
- We entered into agreements to sell our equity interests in our South American businesses, which were previously included in our Sempra South American Utilities segment, and expect those sales to close in the first half of 2020.

Our South American businesses and certain activities associated with those businesses have been reclassified to discontinued operations for all periods presented. Nominal activities that are not classified as discontinued operations have been subsumed into Parent and other. Our discussions below exclude discontinued operations, unless otherwise noted.

RESULTS OF OPERATIONS

We discuss the following in Results of Operations:

- Overall results of operations of Sempra Energy
- Segment results
- Significant changes in revenues, costs and earnings
- Impact of foreign currency and inflation rates on results of operations

OVERALL RESULTS OF OPERATIONS OF SEMPRA ENERGY

In 2019, our earnings increased by approximately \$1,131 million to \$2,055 million and our diluted EPS increased by \$3.87 to \$7.29. In 2018 compared to 2017, our earnings increased by \$668 million to \$924 million and our diluted EPS increased by \$2.41 to \$3.42. The change in diluted EPS for 2019 and 2018 included decreases of \$(0.33) and \$(0.24), respectively, attributable to an increase in weighted-average common shares outstanding. Our earnings and diluted EPS were impacted by variances discussed in "Segment Results" below.

SEGMENT RESULTS

The following section presents earnings (losses) by Sempra Energy segment, as well as Parent and other, and the related discussion of the changes in segment earnings (losses). Throughout the MD&A, our reference to earnings represents earnings attributable to common shares. Variance amounts presented are the after-tax earnings impact (based on applicable statutory tax rates), unless otherwise noted, and before NCI, where applicable. As we discuss below in "Significant Changes in Revenues, Costs and Earnings – Income Taxes," in December 2017, the TCJA was signed into law. The TCJA reduced the U.S. statutory corporate federal income tax rate from 35% to 21%, effective January 1, 2018. After-tax variances between 2018 and 2017 assume that amounts in both years were taxed at the 2017 statutory rate.

SEMPRA ENERGY EARNINGS (LOSSES) BY SEGMENT*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
SDG&E	\$ 767	\$ 669	\$ 407
SoCalGas	641	400	396
Sempra Texas Utilities	528	371	—
Sempra Mexico	253	237	169
Sempra Renewables	59	328	252
Sempra LNG	(6)	(617)	150
Parent and other ⁽¹⁾	(515)	(620)	(1,060)
Discontinued operations	328	156	(58)
Earnings attributable to common shares	\$ 2,055	\$ 924	\$ 256

⁽¹⁾ Includes \$914 million income tax expense from the effects of the TCJA in 2017, intercompany eliminations recorded in consolidation and certain corporate costs.

SDG&E

The increase in earnings of \$98 million (15%) in 2019 was primarily due to:

- \$71 million higher CPUC base operating margin authorized for 2019, net of operating expenses;
- \$31 million income tax benefit from the release of a regulatory liability established in connection with 2017 tax reform for excess deferred income tax balances that the CPUC directed to be allocated to shareholders in a January 2019 decision; and
- \$11 million higher margin from electric transmission operations, net of a FERC formulaic rate adjustment benefit in 2018; **offset by**
- \$10 million amortization of Wildfire Fund asset.

The increase in earnings of \$262 million in 2018 compared to 2017 was primarily due to:

- \$208 million charge in 2017 for the write-off of a regulatory asset associated with 2007 wildfire costs;
- \$65 million higher margin from electric transmission operations in 2018, including the annual FERC formulaic rate adjustment;
- \$28 million unfavorable impact in 2017 from the remeasurement of certain U.S. federal deferred income tax assets as a result of the TCJA; and
- \$27 million higher CPUC base operating margin authorized for 2018, primarily related to the lower federal income tax rate in 2018; **offset by**
- \$35 million higher net interest expense, of which \$25 million relates to the lower federal income tax rate in 2018; and
- \$11 million unfavorable impact due to lower cost of capital related to GRC base business, which excludes incremental projects and other balanced capital programs, in 2018, of which \$2 million relates to the lower federal income tax rate in 2018.

SoCalGas

The increase in earnings of \$241 million in 2019 was primarily due to:

- \$216 million higher CPUC base operating margin authorized for 2019, net of operating expenses;
- \$38 million income tax benefit from the impact of the January 2019 CPUC decision allocating certain excess deferred income tax balances to shareholders;
- \$22 million from impacts associated with Aliso Canyon natural gas storage facility litigation in 2018; and
- \$14 million higher income tax benefits from flow-through items; **offset by**
- \$21 million impairment of non-utility native gas assets in 2019;
- \$18 million higher net interest expense; and
- \$8 million penalties in 2019 related to the SoCalGas billing practices OII.

The increase in earnings of \$4 million (1%) in 2018 compared to 2017 was primarily due to:

- \$36 million higher CPUC base operating margin authorized for 2018, net of expenses including depreciation (of this increase, \$28 million relates to the lower federal income tax rate in 2018); and
- \$16 million higher PSEP earnings; **offset by**
- \$22 million higher net interest expense, of which \$15 million relates to the lower federal income tax rate in 2018;
- \$21 million unfavorable impact due to lower cost of capital related to GRC base business in 2018, of which \$4 million relates to the lower federal income tax rate in 2018; and

- \$22 million in 2018 from impacts associated with Aliso Canyon natural gas storage facility litigation compared to \$20 million in 2017.

Sempra Texas Utilities

The increase in earnings of \$157 million (42%) in 2019 primarily represents higher equity earnings from Oncor Holdings, which we acquired in March 2018, driven by the impact of Oncor's acquisition of InfraREIT in May 2019 and higher revenues due to rate updates to reflect increases in invested transmission capital, partially offset by higher operating costs.

Earnings of \$371 million in 2018 represent equity earnings from our investment in Oncor Holdings.

Sempra Mexico

The increase in earnings of \$16 million (7%) in 2019 was primarily due to:

- \$18 million primarily due to the start of commercial operations of the Sur de Texas-Tuxpan marine pipeline at IMG JV in the third quarter of 2019;
- \$16 million lower income tax expense in 2019 primarily from a two-year tax abatement that expires in 2020; and
- \$122 million earnings attributable to NCI at IEnova in 2019 compared to \$132 million earnings in 2018; **offset by**
- \$20 million lower earnings primarily from force majeure payments that ended on August 22, 2019 with respect to the Guaymas-El Oro segment of the Sonora pipeline; and
- \$17 million unfavorable impact from foreign currency and inflation effects, net of foreign currency derivatives effects, comprised of:
 - in 2019, \$88 million unfavorable foreign currency and inflation effects, offset by a \$29 million gain from foreign currency derivatives, *offset by*
 - in 2018, \$43 million unfavorable foreign currency and inflation effects, offset by a \$1 million gain from foreign currency derivatives (we discuss these effects below in "Impact of Foreign Currency and Inflation Rates on Results of Operations.")

The increase in earnings of \$68 million (40%) in 2018 compared to 2017 was primarily due to:

- \$107 million higher earnings at TdM, including \$71 million impairment in 2017 of assets that were held for sale until June 1, 2018 and \$32 million improved operating results primarily as a result of major maintenance in 2017 and higher revenues in 2018;
- \$37 million higher earnings, primarily attributable to pipeline assets placed in service in the second quarter of 2017 and IEnova's increased indirect ownership interest in TAGJV; and
- \$10 million improved operating results at Ecogas, mainly due to new rates approved by the CRE and regulated revenues associated with recovery for revised tariffs; **offset by**
- \$132 million earnings attributable to NCI at IEnova in 2018 compared to \$73 million in 2017;
- \$22 million lower capitalized financing costs, primarily associated with assets placed in service at the end of the first half of 2017, net of higher equity earnings in 2018 from AFUDC at IMGJV; and
- \$7 million unfavorable impact from foreign currency and inflation effects, net of foreign currency derivatives effects, comprised of:
 - in 2018, \$43 million unfavorable foreign currency and inflation effects, offset by a \$1 million gain from foreign currency derivatives, *offset by*
 - in 2017, \$84 million unfavorable foreign currency and inflation effects, offset by a \$49 million gain from foreign currency derivatives.

Sempra Renewables

As we discuss in Note 5 of the Notes to Consolidated Financial Statements, Sempra Renewables sold its remaining wind assets and investments in April 2019, upon which date the segment ceased to exist.

The decrease in earnings of \$269 million in 2019 was primarily due to:

- \$367 million gain on the sale of all Sempra Renewables' operating solar assets, solar and battery storage development projects and its 50% interest in a wind power generation facility in December 2018; and
- \$92 million lower earnings from assets sold in December 2018 and April 2019, net of lower general and administrative and other costs due to the wind-down of this business; **offset by**
- \$145 million other-than-temporary impairment of certain U.S. wind equity method investments in 2018; and
- \$45 million gain on sale of Sempra Renewables' remaining wind assets in 2019.

The increase in earnings of \$76 million (30%) in 2018 compared to 2017 was primarily due to:

- \$367 million gain on the sale of all Sempra Renewables' operating solar assets, solar and battery storage development projects and its 50% interest in a wind power generation facility in December 2018;
- \$35 million higher pretax losses attributed to NCI, including the impact of the TCJA on NCI allocations computed using the HLBV method; and
- \$19 million lower depreciation as a result of solar and wind assets held for sale; **offset by**
- \$192 million favorable impact in 2017 from the remeasurement of U.S. federal deferred income tax liabilities as a result of the TCJA; and
- \$145 million other-than-temporary impairment of certain U.S. wind equity method investments in 2018.

Sempra LNG

The decrease in losses of \$611 million in 2019 was primarily due to:

- \$665 million net impairment of certain non-utility natural gas storage assets in the southeast U.S. in 2018, including \$801 million impairment in the second quarter of 2018, offset by a \$136 million reduction to the impairment in the fourth quarter of 2018;
- \$17 million higher equity earnings from Cameron LNG JV, including:
 - \$36 million increase primarily due to Train 1 commencing commercial operation under its tolling agreements in August 2019, *offset by*
 - \$19 million decrease due to the write-off of unamortized debt issuance costs and associated fees related to Cameron LNG JV's debt refinancing; and
- \$9 million unfavorable adjustment in 2018 to TCJA provisional amounts recorded in 2017 related to the remeasurement of deferred income taxes; **offset by**
- \$36 million losses attributable to NCI in 2018 related to the net impairment discussed above; and
- \$28 million higher liquefaction project development costs and operating costs.

Losses of \$617 million in 2018 compared to earnings of \$150 million in 2017 were primarily due to:

- \$665 million net impairment of certain non-utility natural gas storage assets in 2018;
- \$142 million higher income tax expense in 2018, which included \$133 million favorable impact in 2017 from the remeasurement of U.S. federal deferred income tax liabilities as a result of the TCJA and \$9 million unfavorable impact in 2018 to adjust TCJA provisional amounts recorded in 2017; and
- \$34 million settlement proceeds in 2017 from a breach of contract claim against a counterparty in bankruptcy court, of which \$28 million related to a charge in 2016 from the permanent release of certain pipeline capacity; **offset by**
- \$36 million losses attributable to NCI in 2018 related to the net impairment discussed above;
- \$24 million higher earnings from midstream activities primarily driven by lower depreciation and amortization as a result of natural gas storage assets held for sale; and
- \$15 million improved results in 2018 from LNG marketing activities.

Parent and Other

The decrease in losses of \$105 million (17%) in 2019 was primarily due to:

- \$65 million impairment of the RBS Sempra Commodities equity method investment in 2018;
- \$48 million higher investment gains in 2019 on dedicated assets in support of our employee nonqualified benefit plan obligations, net of deferred compensation expenses;
- \$32 million income tax expense in 2018 to adjust provisional amounts recorded in 2017 related to the TCJA; and
- \$10 million income tax benefit in 2019 to reduce a valuation allowance against certain NOL carryforwards as a result of our decision to sell our South American businesses; **offset by**
- \$17 million increase in mandatory convertible preferred stock dividends primarily from the issuance of series B preferred stock in July 2018;
- \$11 million increase primarily related to settlement charges from our nonqualified pension plan; and
- \$11 million loss from foreign currency derivatives used to hedge exposure to fluctuations in the Peruvian Sol related to the sale of our operations in Peru.

The decrease in losses of \$440 million (42%) in 2018 compared to 2017 was primarily due to:

- \$914 million unfavorable impact in 2017 from the TCJA, offset by \$32 million income tax expense in 2018 to adjust provisional amounts recorded in 2017 (we discuss the impacts from the TCJA in “Significant Changes in Revenues, Costs and Earnings – Income Taxes” below); **offset by**
- \$179 million increase in net interest expense, of which \$58 million relates to the lower tax rate in 2018;
- \$125 million mandatory convertible preferred stock dividends declared;
- \$65 million impairment of the RBS Sempra Commodities equity method investment; and
- \$15 million investment losses in 2018 compared to \$41 million investment gains in 2017 on dedicated assets in support of our employee nonqualified benefit plan obligations, net of deferred compensation expenses.

Discontinued Operations

Discontinued operations that were previously in our Sempra South American Utilities segment include our 100% interest in Chilquinta Energía in Chile, our 83.6% interest in Luz del Sur in Peru and our interests in two energy-services companies, Tecnoed and Tecsur, which provide electric construction and infrastructure services to Chilquinta Energía and Luz del Sur, respectively, as well as third parties. Discontinued operations also include activities, mainly income taxes related to the South American businesses, that were previously included in the holding company of the South American businesses at Parent and other.

The increase in earnings of \$172 million in 2019 was primarily due to:

- \$91 million higher earnings from South American operations mainly from higher rates, lower cost of purchased power at Peru, and including \$38 million lower depreciation expense due to assets classified as held for sale;
- \$89 million income tax benefit in 2019 from outside basis differences in our South American businesses primarily related to the change in our indefinite reinvestment assertion from our decision on January 25, 2019 to hold those businesses for sale and a change in the anticipated structure of the sale; and
- \$44 million income tax expense in 2018 to adjust TCJA provisional amounts recorded in 2017 primarily related to withholding tax on our expected future repatriation of foreign undistributed earnings; **offset by**
- \$51 million income tax expense related to the increase in outside basis differences from 2019 earnings since January 25, 2019.

Earnings of \$156 million in 2018 compared to losses of \$58 million in 2017 were primarily due to a \$251 million unfavorable impact in 2017 from the TCJA, offset by \$44 million income tax expense in 2018 to adjust provisional amounts recorded in 2017.

SIGNIFICANT CHANGES IN REVENUES, COSTS AND EARNINGS

This section contains a discussion of the differences between periods in the specific line items of the Consolidated Statements of Operations for Sempra Energy, SDG&E and SoCalGas.

Utilities Revenues

Our utilities revenues include natural gas revenues at our California Utilities and Sempra Mexico’s Ecogas and electric revenues at SDG&E. Intercompany revenues included in the separate revenues of each utility are eliminated in the Sempra Energy Consolidated Statements of Operations.

SoCalGas and SDG&E currently operate under a regulatory framework that permits:

- The cost of natural gas purchased for core customers (primarily residential and small commercial and industrial customers) to be passed through to customers in rates substantially as incurred. However, SoCalGas’ GCIM provides SoCalGas the opportunity to share in the savings and/or costs from buying natural gas for its core customers at prices below or above monthly market-based benchmarks. This mechanism permits full recovery of costs incurred when average purchase costs are within a price range around the benchmark price. Any higher costs incurred or savings realized outside this range are shared between the core customers and SoCalGas. We provide further discussion in Note 3 of the Notes to Consolidated Financial Statements and in “Item 1. Business – Ratemaking Mechanisms.”
- SDG&E to recover the actual cost incurred to generate or procure electricity based on annual estimates of the cost of electricity supplied to customers. The differences in cost between estimates and actual are recovered or refunded in subsequent periods through rates.
- The California Utilities to recover certain expenses for programs authorized by the CPUC, or “refundable programs.”

Because changes in SoCalGas’ and SDG&E’s cost of natural gas and/or electricity are recovered in rates, changes in these costs are offset in the changes in revenues, and therefore do not impact earnings. In addition to the changes in cost or market prices,

natural gas or electric revenues recorded during a period are impacted by customer billing cycles causing a difference between customer billings and recorded or authorized costs. These differences are required to be balanced over time, resulting in over- and undercollected regulatory balancing accounts. We discuss balancing accounts and their effects further in Note 4 of the Notes to Consolidated Financial Statements.

The table below summarizes utilities revenues and cost of sales.

	Years ended December 31,		
	2019	2018	2017
UTILITIES REVENUES AND COST OF SALES			
<i>(Dollars in millions)</i>			
Natural gas revenues:			
SoCalGas	\$ 4,525	\$ 3,962	\$ 3,785
SDG&E	658	565	541
Sempra Mexico	73	78	110
Eliminations and adjustments	(71)	(65)	(75)
Total	5,185	4,540	4,361
Electric revenues:			
SDG&E	4,267	4,003	3,935
Eliminations and adjustments	(4)	(4)	(6)
Total	4,263	3,999	3,929
Total utilities revenues	\$ 9,448	\$ 8,539	\$ 8,290
Cost of natural gas:			
SoCalGas	\$ 977	\$ 1,048	\$ 1,025
SDG&E	176	152	164
Sempra Mexico	14	21	70
Eliminations and adjustments	(28)	(13)	(69)
Total	\$ 1,139	\$ 1,208	\$ 1,190
Cost of electric fuel and purchased power:			
SDG&E	\$ 1,194	\$ 1,370	\$ 1,293
Eliminations and adjustments	(6)	(12)	—
Total	\$ 1,188	\$ 1,358	\$ 1,293

Natural Gas Revenues and Cost of Natural Gas

The table below summarizes the average cost of natural gas sold by the California Utilities and included in Cost of Natural Gas. The average cost of natural gas sold at each utility is impacted by market prices, as well as transportation, tariff and other charges.

	Years ended December 31,		
	2019	2018	2017
CALIFORNIA UTILITIES AVERAGE COST OF NATURAL GAS			
<i>(Dollars per thousand cubic feet)</i>			
SoCalGas	\$ 3.07	\$ 3.58	\$ 3.44
SDG&E	3.91	3.81	4.08

In 2019, our natural gas revenues increased by \$645 million (14%) to \$5.2 billion primarily due to:

- \$563 million increase at SoCalGas, which included:
 - \$383 million higher authorized revenue in 2019,
 - \$105 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are offset in O&M,
 - \$62 million higher non-service component of net periodic benefit cost in 2019, which fully offsets in Other Income, Net,
 - \$29 million charges in 2018 associated with tracking the income tax benefit from flow-through items in relation to forecasted amounts in the 2016 GRC FD, and
 - \$16 million higher net revenues from PSEP, *offset by*
 - \$71 million decrease in the cost of natural gas sold, which we discuss below; and

- \$93 million increase at SDG&E, which included:
 - \$68 million higher authorized revenue in 2019, and
 - \$24 million increase in the cost of natural gas sold, which we discuss below.

In 2018 compared to 2017, our natural gas revenues increased by \$179 million (4%) to \$4.5 billion primarily due to:

- \$177 million increase at SoCalGas, which included:
 - \$160 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are offset in O&M,
 - \$71 million increase in 2018 due to an increase in rates permitted under the attrition mechanism in the 2016 GRC FD,
 - \$23 million increase in cost of natural gas sold, and
 - \$19 million decrease in charges in 2018 associated with tracking the income tax benefit from flow-through items in relation to forecasted amounts in the 2016 GRC FD, *offset by*
 - \$67 million revenue deferral due to the effect of the TCJA,
 - \$29 million lower cost of capital related to GRC base business in 2018, and
 - \$10 million lower net revenues from capital projects, including \$60 million decrease for advanced metering infrastructure due to completion of the project, offset by increases of \$14 million for PSEP and \$36 million for other capital projects; and
- \$24 million increase at SDG&E primarily due to higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are offset in O&M, and 2018 attrition; **offset by**
- \$32 million decrease at Sempra Mexico, which included:
 - \$46 million lower volumes at Ecogas primarily as a result of the new regulations that went into effect on March 1, 2018 that no longer allow Ecogas to sell natural gas to high consumption end users (defined by the CRE as customers with annual consumption that exceeds 4,735 MMBtu) and require those end users to procure their natural gas needs from natural gas marketers, including Sempra Mexico's marketing business, *offset by*
 - \$13 million higher rates approved by the CRE, including \$7 million from a regulatory adjustment to rates charged to end users in 2014 through 2016.

Our cost of natural gas decreased by \$69 million (6%) to \$1.1 billion in 2019 primarily due to:

- \$71 million decrease at SoCalGas, including \$164 million due to lower average natural gas prices, offset by \$93 million from higher volumes driven by weather; and
- \$15 million increase in intercompany eliminations primarily associated with sales between Sempra LNG and SoCalGas; **offset by**
- \$24 million increase at SDG&E, including \$19 million from higher volumes driven by weather and \$5 million from higher average natural gas prices.

Our cost of natural gas increased by \$18 million (2%), remaining at \$1.2 billion in 2018 compared to 2017, primarily due to:

- \$56 million increase primarily from lower elimination of intercompany costs at Sempra Mexico; and
- \$23 million increase at SoCalGas due to \$43 million from higher average gas prices, offset by \$20 million from lower volumes driven by weather; **offset by**
- \$49 million decrease at Sempra Mexico primarily associated with the lower revenues at Ecogas; and
- \$12 million decrease at SDG&E primarily due to lower average gas prices.

Electric Revenues and Cost of Electric Fuel and Purchased Power

Our electric revenues increased by \$264 million (7%) to \$4.3 billion in 2019 primarily attributable to SDG&E, including:

- \$121 million higher authorized revenue in 2019, including \$108 million of revenues to cover liability insurance premium costs that are now balanced and offset in O&M;
- \$40 million higher revenues from transmission operations, net of a FERC formulaic rate adjustment benefit in 2018;
- \$34 million higher recovery of costs associated with CPUC-authorized refundable programs, excluding 2019 liability insurance premium costs, which revenues are offset in O&M;
- \$27 million higher finance lease costs, offset by lower cost of electric fuel and purchased power, which we discuss below; and
- \$21 million charges in 2018 associated with tracking the income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD.

In 2018 compared to 2017, our electric revenues increased by \$70 million (2%) to \$4.0 billion primarily attributable to SDG&E, including:

- \$77 million higher cost of electric fuel and purchased power;
- \$50 million higher revenues from transmission operations, including the annual FERC formulaic rate adjustment;
- \$32 million decrease in charges in 2018 associated with tracking the income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD; and
- \$32 million increase due to 2018 attrition; **offset by**
- \$65 million revenue deferral due to the effect of the TCJA;
- \$39 million revenue deferral related to the SONGS settlement, which is offset by the discontinuation of amortization; and
- \$13 million lower cost of capital related to the CPUC base business in 2018.

Our utility cost of electric fuel and purchased power decreased by \$170 million (13%) to \$1.2 billion in 2019, primarily attributable to SDG&E, including:

- \$103 million of finance lease costs for PPAs in 2018. Similar amounts are now included in Interest Expense and Depreciation and Amortization Expense as a result of the 2019 adoption of the lease standard; and
- \$73 million decrease primarily from lower electricity market cost, offset by an increase primarily due to an additional capacity contract.

Our utility cost of electric fuel and purchased power increased by \$65 million (5%) to \$1.4 billion in 2018 compared to 2017 primarily attributable to SDG&E, driven primarily by higher gas prices and electricity market costs, partially offset by lower cost of purchased power from renewable sources due to decreased solar and wind production and from lower capacity contract costs.

Energy-Related Businesses: Revenues and Cost of Sales

The table below shows revenues and cost of sales for our energy-related businesses.

ENERGY-RELATED BUSINESSES: REVENUES AND COST OF SALES

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
REVENUES			
Sempra Mexico	\$ 1,302	\$ 1,298	\$ 1,086
Sempra Renewables	10	124	94
Sempra LNG	410	472	540
Parent and other ⁽²⁾	(341)	(331)	(370)
Total revenues	\$ 1,381	\$ 1,563	\$ 1,350
COST OF SALES⁽¹⁾			
Sempra Mexico	\$ 373	\$ 363	\$ 261
Sempra LNG	299	313	352
Parent and other ⁽²⁾	(328)	(319)	(322)
Total cost of sales	\$ 344	\$ 357	\$ 291

⁽¹⁾ Excludes depreciation and amortization, which are presented separately on the Sempra Energy Consolidated Statements of Operations.

⁽²⁾ Includes eliminations of intercompany activity.

Revenues from our energy-related businesses decreased by \$182 million (12%) to \$1.4 billion in 2019 while the related cost of sales for 2019 was comparable to 2018. The decrease in revenues included:

- \$114 million decrease at Sempra Renewables primarily due to the sale of assets in December 2018 and April 2019; and
- \$62 million decrease at Sempra LNG primarily due to:
 - \$45 million lower natural gas storage revenues primarily due to the sale of storage assets in February 2019,
 - \$15 million from the marketing business due to lower tumbuck cargo revenues, and
 - \$12 million from LNG sales to Cameron LNG JV in January 2018, *offset by*
 - \$14 million from natural gas marketing activities primarily due to changes in natural gas prices; **offset by**
- \$4 million increase at Sempra Mexico primarily due to:
 - \$23 million from the marketing business, including an increase in volumes due to new regulations that went into effect on March 1, 2018 that require high consumption end users (previously serviced by Ecogas and other natural gas utilities) to procure their natural gas needs from natural gas marketers, such as Sempra Mexico's marketing business, offset by lower natural gas prices, and

- \$6 million increase primarily due to renewable assets placed in service in 2019, *offset by*
- \$27 million lower revenues primarily from force majeure payments that ended on August 22, 2019 with respect to the Guaymas-El Oro segment of the Sonora pipeline.

In 2018 compared to 2017, revenues from our energy-related businesses increased by \$213 million (16%) to \$1.6 billion. The increase included:

- \$212 million increase at Sempra Mexico primarily due to:
 - \$84 million from the marketing business, primarily due to new regulations that went into effect on March 1, 2018 and from higher volumes and gas prices,
 - \$69 million at TdM primarily due to the plant outage in 2017 as a result of scheduled major maintenance and higher power prices,
 - \$34 million primarily due to pipeline assets placed in service in the second quarter of 2017, and
 - \$18 million from O&M services provided to the TAGJV;
- \$39 million increase from lower intercompany eliminations associated with sales between Sempra LNG and Sempra Mexico; and
- \$30 million increase at Sempra Renewables primarily due to solar and wind assets placed in service in the fourth quarter of 2017 and the second quarter of 2018; **offset by**
- \$68 million decrease at Sempra LNG primarily due to:
 - \$98 million costs associated with indemnity payments to Sempra Mexico in 2018. Indemnity payments of \$103 million in 2017 were recorded in Energy-Related Businesses Cost of Sales prior to adoption of ASC 606, *offset by*
 - \$50 million from the marketing business primarily from higher natural gas sales and tumbaco cargo revenues.

The cost of sales for our energy-related businesses increased by \$66 million (23%) to \$357 million in 2018 compared to 2017 primarily due to:

- \$102 million at Sempra Mexico primarily associated with higher revenues from the marketing business as a result of the new regulations that went into effect on March 1, 2018. The increase at Sempra Mexico was also due to higher volumes in 2018 due to the TdM plant outage in 2017;
- \$57 million in settlement proceeds received by Sempra LNG in May 2017 from a breach of contract claim against a counterparty, of which \$47 million is related to a charge in 2016 from permanent release of pipeline capacity; and
- \$4 million lower intercompany eliminations of costs between Sempra LNG and Sempra Mexico, including \$103 million elimination of indemnity payments made by Sempra LNG in 2017 now recorded as a reduction to Energy-Related Business Revenues since adoption of ASC 606; **offset by**
- \$88 million decrease at Sempra LNG primarily due to indemnity payments to Sempra Mexico in 2017 recorded in revenue in 2018 pursuant to adoption of ASC 606.

Operation and Maintenance

In the table below, we provide O&M by segment.

OPERATION AND MAINTENANCE

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
SDG&E ⁽¹⁾	\$ 1,175	\$ 1,058	\$ 1,024
SoCalGas	1,780	1,613	1,474
Sempra Mexico	256	239	234
Sempra Renewables	18	89	73
Sempra LNG	156	123	123
Parent and other ⁽²⁾	81	28	19
Total operation and maintenance	\$ 3,466	\$ 3,150	\$ 2,947

⁽¹⁾ Excludes \$6 million of impairment losses, which we discuss below.

⁽²⁾ Includes eliminations of intercompany activity.

Our O&M increased by \$316 million (10%) to \$3.5 billion in 2019 primarily due to:

- \$167 million increase at SoCalGas, which included:
 - \$105 million higher expenses associated with CPUC-authorized refundable programs for which costs incurred are recovered in revenue (refundable program expenses), and
 - \$57 million higher non-refundable operating costs, including labor, contract services and administrative and support costs;
- \$117 million increase at SDG&E which included:
 - \$147 million higher expenses associated with CPUC-authorized refundable programs, including \$112 million of 2019 liability insurance premium costs that are now balanced in revenue, and
 - \$12 million amortization of Wildfire Fund asset, *offset by*
 - \$46 million lower non-refundable operating costs, including \$87 million decrease from liability insurance premium costs for 2018 that were not balanced, offset by \$41 million of higher operating costs;
- \$53 million increase at Parent and other primarily from higher deferred compensation expense;
- \$33 million increase at Sempra LNG primarily from higher liquefaction development project costs and higher operating costs; and
- \$17 million increase at Sempra Mexico primarily due to expenses associated with growth in the business and operating lease costs in 2019; **offset by**
- \$71 million decrease at Sempra Renewables primarily due to lower general and administrative and other costs due to the wind-down of the business.

Our O&M increased by \$203 million (7%) to \$3.2 billion in 2018 compared to 2017 primarily due to:

- \$139 million increase at SoCalGas, which included:
 - \$160 million higher expenses associated with CPUC-authorized refundable programs, *offset by*
 - \$20 million Aliso Canyon litigation reserves in 2017;
- \$34 million increase at SDG&E, which included:
 - \$22 million higher non-refundable operating costs, including labor, contract services and administrative and support costs, and
 - \$11 million reimbursement of litigation costs in 2017 associated with the arbitration ruling over the SONGS replacement steam generators; and
- \$16 million increase at Sempra Renewables primarily due to solar and wind assets placed in service in the fourth quarter of 2017 and the second quarter of 2018 and selling costs associated with the sale of assets.

Write-Off of Wildfire Regulatory Asset

In 2017, SDG&E recorded a \$351 million charge for the write-off of a regulatory asset associated with 2007 wildfire costs. We discuss this further in Note 16 of the Notes to Consolidated Financial Statements.

Impairment Losses

In 2019, SoCalGas recognized a \$29 million impairment loss related to non-utility native gas assets, and SDG&E and SoCalGas recognized impairment losses of \$6 million and \$8 million, respectively, for certain disallowed capital costs in the 2019 GRC FD. In 2018, Sempra LNG recognized a \$1.1 billion net impairment loss for certain non-utility natural gas storage assets in the southeast U.S. In 2017, Sempra Mexico reduced the carrying value of TdM by recognizing noncash impairment charges of \$71 million.

Gain on Sale of Assets

In April 2019, Sempra Renewables recognized a \$61 million gain on the sale of its remaining wind assets and investments to AEP. In December 2018, Sempra Renewables recognized a \$513 million gain on the sale of all its operating solar assets, solar and battery storage development projects and its 50% interest in a wind power generation facility to a subsidiary of Con Ed.

Other Income, Net

As part of our central risk management function, we enter into foreign currency derivatives to hedge Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova. The gains/losses associated with these derivatives are included in Other Income, Net, as described below, and partially mitigate the transactional effects of foreign currency and inflation included in Income Tax (Expense) Benefit for Sempra Mexico's consolidated entities and in Equity Earnings for Sempra Mexico's equity method investments. We also utilize foreign currency derivatives to hedge exposure to fluctuations in the Peruvian Sol related to the sale of our operations in Peru. We discuss policies governing our risk management below in "Item 7A. Quantitative and Qualitative Disclosures About Market Risk."

Other income, net, increased by \$19 million (33%) to \$77 million in 2019 primarily due to:

- \$61 million investment gains in 2019 compared to \$6 million investment losses in 2018 on dedicated assets in support of our executive retirement and deferred compensation plans; and
- \$54 million higher net gains from interest rate and foreign exchange instruments and foreign currency transactions primarily due to:
 - \$37 million higher gains in 2019 on foreign currency derivatives as a result of fluctuation of the Mexican peso, and
 - \$30 million foreign currency gains in 2019 compared to \$3 million foreign currency losses in 2018 on a Mexican peso-denominated loan to IMG JV, which is offset in Equity Earnings, *offset by*
 - \$15 million losses in 2019 on foreign currency derivatives used to hedge exposure to fluctuations in the Peruvian Sol related to the sale of our operations in Peru; **offset by**
- \$97 million higher non-service component of net periodic benefit cost in 2019, including \$14 million at SDG&E and \$62 million at SoCalGas.

In 2018 compared to 2017, other income, net, decreased by \$162 million to \$58 million primarily due to:

- \$70 million decrease in equity-related AFUDC mainly from completion of pipeline projects at Sempra Mexico in 2017;
- \$6 million investment losses in 2018 compared to \$56 million investment gains in 2017 on dedicated assets in support of our executive retirement and deferred compensation plans;
- \$15 million higher non-service component of net periodic benefit cost in 2018, including \$10 million at SDG&E and \$5 million at SoCalGas; and
- \$13 million lower net gains from interest rate and foreign exchange instruments and foreign currency transactions primarily due to:
 - \$46 million lower gains in 2018 on foreign currency derivatives as a result of fluctuation of the Mexican peso, *offset by*
 - \$32 million lower losses in 2018 on a Mexican peso-denominated loan to IMG JV, which is offset in Equity Earnings.

We provide further details of the components of other income, net, in Note 1 of the Notes to Consolidated Financial Statements.

Income Taxes

The table below shows the income tax expense (benefit) and ETRs for Sempra Energy Consolidated, SDG&E and SoCalGas.

INCOME TAX EXPENSE (BENEFIT) AND EFFECTIVE INCOME TAX RATES

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Income tax expense (benefit) from continuing operations	\$ 315	\$ (49)	\$ 938
Income from continuing operations before income taxes and equity earnings	\$ 1,734	\$ 714	\$ 1,248
Equity earnings (losses), before income tax ⁽¹⁾	30	(236)	34
Pretax income	\$ 1,764	\$ 478	\$ 1,282
Effective income tax rate	18%	(10)%	73%
SDG&E			
Income tax expense	\$ 171	\$ 173	\$ 155
Income before income taxes	\$ 945	\$ 849	\$ 576
Effective income tax rate	18%	20%	27%
SoCalGas:			
Income tax expense	\$ 120	\$ 92	\$ 160
Income before income taxes	\$ 762	\$ 493	\$ 557
Effective income tax rate	16%	19%	29%

⁽¹⁾ We discuss how we recognize equity earnings in Note 6 of the Notes to Consolidated Financial Statements.

In December 2017, the TCJA was signed into law. We recorded the effects of the TCJA in 2017 using our best estimates and the information available to us through the date those financial statements were issued. In 2018, we adjusted our 2017 provisional estimates and completed our accounting for the income tax effects of the TCJA. To the extent we intend to repatriate cash to the U.S., we have accrued incremental deferred income tax. We discuss the TCJA and our indefinite reinvestment assertion further in Note 8 of the Notes to Consolidated Financial Statements.

Sempra Energy Consolidated

Sempra Energy's income tax expense in 2019 compared to an income tax benefit in 2018 was due to higher pretax income and a higher ETR. Pretax income in 2018 was impacted by the impairments at our Sempra LNG and Sempra Renewables segments offset by the gain from sale of assets at Sempra Renewables. The change in ETR was primarily due to:

- \$131 million income tax benefit in 2018 resulting from the reduced outside basis difference in Sempra LNG as a result of the impairment of certain non-utility natural gas storage assets; and
- \$45 million higher income tax expense in 2019 from foreign currency and inflation effects primarily as a result of fluctuation of the Mexican peso; **offset by**
- \$69 million total income tax benefits from the release of regulatory liabilities at SDG&E and SoCalGas established in connection with 2017 tax reform for excess deferred income tax balances that the CPUC directed be allocated to shareholders in a January 2019 decision;
- \$41 million income tax expense in 2018 to adjust provisional estimates recorded in 2017 for the effects of tax reform;
- \$21 million income tax expense in 2018 associated with Aliso Canyon natural gas storage facility litigation; and
- \$10 million income tax benefit in 2019 from a reduction in a valuation allowance against certain NOL carryforwards as a result of our decision to sell our South American businesses.

Sempra Energy's income tax benefit in 2018 compared to an income tax expense in 2017 was due to a lower ETR and lower pretax income. Pretax income in 2017 was impacted by the write-off of SDG&E's wildfire regulatory asset. The lower ETR was primarily due to:

- \$619 million income tax expense in 2017 from the effects of the TCJA, as follows:
 - \$437 million related to future repatriation of foreign earnings, including \$328 million of U.S. federal income tax expense pertaining to the deemed repatriation tax and \$109 million U.S. state and non-U.S. withholding tax expense on our expected future repatriation of foreign undistributed earnings estimated for deemed repatriation, and
 - \$182 million from remeasurement of our U.S. federal deferred income tax balances from 35% to 21%;

- \$131 million income tax benefit in 2018 resulting from the reduced outside basis difference in Sempra LNG as a result of the impairment of certain non-utility natural gas storage assets;
- \$98 million lower income tax expense from the lower U.S. statutory corporate federal income tax rate in 2018; and
- \$38 million lower income tax expense from foreign currency and inflation effects, as a result of fluctuation of the Mexican peso; **offset by**
- \$41 million income tax expense in 2018 to adjust provisional estimates recorded in 2017 for the effects of tax reform;
- \$21 million income tax expense in 2018 associated with Aliso Canyon natural gas storage facility litigation; and
- lower income tax benefits from flow-through deductions in 2018.

We report as part of our pretax results the income or loss attributable to NCI. However, we do not record income taxes for a portion of this income or loss, as some of our entities with NCI are currently treated as partnerships for income tax purposes, and thus we are only liable for income taxes on the portion of the earnings that are allocated to us. Our pretax income, however, includes 100% of these entities. As our entities with NCI grow, and as we may continue to invest in such entities, the impact on our ETR may become more significant.

SDG&E

SDG&E's income tax expense decreased in 2019 due to a lower ETR partially offset by higher pretax income. The change in ETR was primarily due to a \$31 million income tax benefit from the release of a regulatory liability established in connection with 2017 tax reform for excess deferred income tax balances that the CPUC directed be allocated to shareholders in a January 2019 decision.

SDG&E's income tax expense increased in 2018 compared to 2017 due to higher pretax income partially offset by a lower ETR. The pretax income in 2017 included the \$351 million (\$208 million after tax) write-off of the wildfire regulatory asset. The lower ETR was primarily due to:

- \$119 million lower income tax expense from the lower U.S. statutory corporate federal income tax rate in 2018; and
- \$28 million deferred income tax expense in 2017 from remeasurement of U.S. federal deferred income tax balances from 35% to 21%, primarily from the deferred income tax asset relating to the impairment of the SONGS Steam Generator Replacement Project in prior years; **offset by**
- \$19 million lower income tax benefit in 2018 from the resolution of prior years' income tax items; and
- lower income tax benefits from flow-through deductions in 2018.

SoCalGas

SoCalGas' income tax expense increased in 2019 due to higher pretax income partially offset by a lower ETR. The change in ETR was primarily due to:

- \$38 million income tax benefit from the release of a regulatory liability established in connection with 2017 tax reform for excess deferred income tax balances that the CPUC directed be allocated to shareholders in a January 2019 decision; and
- \$21 million income tax expense in 2018 associated with Aliso Canyon natural gas storage facility litigation.

SoCalGas' income tax expense decreased in 2018 compared to 2017 due to lower pretax income and a lower ETR. The lower ETR was primarily due to:

- \$69 million lower income tax expense from the lower U.S. statutory corporate federal income tax rate in 2018; **offset by**
- \$21 million income tax expense in 2018 associated with Aliso Canyon natural gas storage facility litigation; and
- lower income tax benefits from flow-through deductions in 2018.

Equity Earnings

Equity earnings increased by \$405 million to \$580 million in 2019 primarily due to:

- \$174 million increase at Sempra Renewables, including \$200 million other-than-temporary impairment of certain wind equity method investments in 2018;
- \$155 million higher equity earnings, net of income tax, from our investment in Oncor Holdings, which we acquired in March 2018;
- \$65 million impairment of our RBS Sempra Commodities equity method investment in 2018; and
- \$24 million higher equity earnings from Cameron LNG JV including:

- \$50 million increase primarily due to Train 1 commencing commercial operation under its tolling agreements in August 2019, *offset by*
- \$26 million decrease due to the write-off of unamortized debt issuance costs and associated fees related to the JV's debt refinancing; **offset by**
- \$20 million lower equity earnings, net of income tax, from IMG JV, including \$30 million foreign currency losses in 2019 compared to \$3 million foreign currency gains in 2018 on its Mexican peso-denominated loans from its JV owners, which is fully offset in Other Income, Net.

Equity earnings increased by \$103 million to \$175 million in 2018 compared to 2017 primarily due to:

- \$371 million equity earnings, net of income tax, from our investment in Oncor Holdings, which we acquired in March 2018; **offset by**
- \$200 million other-than-temporary impairment of certain wind equity method investments at Sempra Renewables in 2018;
- \$65 million impairment of our RBS Sempra Commodities equity method investment in 2018; and
- \$16 million lower equity earnings, net of income tax, from IMG JV, including \$32 million lower foreign currency gains in 2018 on its Mexican peso-denominated loans from its JV owners, which is fully offset in Other Income, Net.

Earnings Attributable to Noncontrolling Interests

Earnings attributable to NCI were \$164 million for 2019 compared to \$76 million for 2018. The net change of \$88 million included:

- \$1 million earnings attributable to NCI at Sempra Renewables in 2019 compared to \$58 million losses in 2018 primarily due to the sales of our tax equity investments in December 2018 and April 2019; and
- \$36 million losses attributable to NCI at Sempra LNG in 2018 due to the net impairment of certain non-utility natural gas storage assets.

Earnings attributable to NCI were \$76 million for 2018 compared to \$94 million for 2017. The net change of \$18 million included:

- \$36 million losses attributable to NCI at Sempra LNG in 2018 due to the net impairment of certain non-utility natural gas storage assets; and
- \$35 million higher pretax losses attributed to tax equity investors at Sempra Renewables; **offset by**
- \$59 million higher earnings attributable to NCI at Sempra Mexico in 2018.

Mandatory Convertible Preferred Stock Dividends

Mandatory convertible preferred stock dividends increased by \$17 million (14%) to \$142 million in 2019 primarily due to dividends associated with our series B preferred stock, which were issued in July 2018.

In 2018, our board of directors declared dividends of \$105 million and \$20 million, respectively, on our series A preferred stock and series B preferred stock.

IMPACT OF FOREIGN CURRENCY AND INFLATION RATES ON RESULTS OF OPERATIONS

Because operations in South America and our natural gas distribution utility in Mexico use their local currency as their functional currency, revenues and expenses are translated into U.S. dollars at average exchange rates for the period for consolidation in Sempra Energy Consolidated's results of operations.

Foreign Currency Translation

Any difference in average exchange rates used for the translation of income statement activity from year to year can cause a variance in Sempra Energy's comparative results of operations. Changes in foreign currency translation rates between years resulted in \$8 million lower earnings within discontinued operations in 2019 compared to 2018 and a negligible impact in 2018 compared to 2017.

Transactional Impacts

Income statement activities at our foreign operations and their JVs are also impacted by transactional gains and losses. A summary of these foreign currency transactional gains and losses included in our reported results is shown in the table below:

TRANSACTIONAL GAINS (LOSSES) FROM FOREIGN CURRENCY AND INFLATION

(Dollars in millions)

	Total reported amounts			Transactional gains (losses) included in reported amounts		
	Years ended December 31,					
	2019	2018	2017	2019	2018	2017
Other income, net	\$ 77	\$ 58	\$ 220	\$ 55	\$ (1)	\$ 16
Income tax (expense) benefit	(315)	49	(938)	(71)	(26)	(64)
Equity earnings	580	175	72	(47)	(14)	12
Income from continuing operations, net of income tax	1,999	938	382	(70)	(41)	(55)
Income (loss) from discontinued operations, net of income tax	363	188	(31)	2	6	2
Earnings attributable to common shares	2,055	924	256	(39)	(21)	(25)

Foreign Currency Exchange Rate and Inflation Impacts on Income Taxes and Related Hedging Activity

Our Mexican subsidiaries have U.S. dollar-denominated cash balances, receivables, payables and debt (monetary assets and liabilities) that are affected by Mexican currency exchange rate movements for Mexican income tax purposes. They also have deferred income tax assets and liabilities, which are significant, denominated in the Mexican peso that must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. As a result, fluctuations in both the currency exchange rate for the Mexican peso against the U.S. dollar and Mexican inflation may expose us to fluctuations in Income Tax Expense, Other Income, Net and Equity Earnings. We use foreign currency derivatives as a means to manage exposure to the currency exchange rate on our monetary assets and liabilities. However, we generally do not hedge our deferred income tax assets and liabilities, which makes us susceptible to volatility in income tax expense caused by exchange rate fluctuations and inflation. The derivative activity impacts Other Income, Net.

We also utilize foreign currency derivatives to hedge exposure to fluctuation in the Peruvian Sol related to the sale of our operations in Peru in discontinued operations.

Other Transactions

Although the financial statements of most of our Mexican subsidiaries and JVs have the U.S. dollar as the functional currency, some transactions may be denominated in the local currency; such transactions are remeasured into U.S. dollars. This remeasurement creates transactional gains and losses that are included in Other Income, Net, for our consolidated subsidiaries and in Equity Earnings for our JVs.

We utilize cross-currency swaps that exchange our Mexican peso-denominated principal and interest payments into the U.S. dollar and swap Mexican variable interest rates for U.S. fixed interest rates. The impacts of these cross-currency swaps are offset in OCI and are reclassified from AOCI into earnings through Other Income, Net and Interest Expense as settlements occur.

Certain of our Mexican pipeline projects (namely Los Ramones I at IEnova Pipelines and Los Ramones Norte within our TAGJV) generate revenue based on tariffs that are set by government agencies in Mexico, with contracts denominated in Mexican pesos that are indexed to the U.S. dollar, adjusted annually for inflation and fluctuation in the exchange rate. The resultant gains and losses from remeasuring the local currency amounts into U.S. dollars and the settlement of foreign currency forwards and swaps related to these contracts are included in Revenues: Energy-Related Businesses or Equity Earnings.

CAPITAL RESOURCES AND LIQUIDITY

OVERVIEW

We expect to meet our cash requirements through cash flows from operations, unrestricted cash and cash equivalents, proceeds from recent and planned asset sales, borrowings under our credit facilities, distributions from our equity method investments, issuances of debt and equity securities, project financing and other equity sales, including partnering in JVs. We believe that these cash flow sources, combined with available funds, will be adequate to fund our current operations, including to:

- finance capital expenditures
- meet liquidity requirements
- fund dividends
- fund new business or asset acquisitions or start-ups
- fund capital contribution requirements
- repay maturing long-term debt
- fund expenditures related to the natural gas leak at SoCalGas' Aliso Canyon natural gas storage facility

Sempra Energy and the California Utilities currently have ready access to the long-term debt markets and are not currently constrained in their ability to borrow at reasonable rates. However, changing economic conditions, our financing activities and actions by credit rating agencies, as well as many other factors, could negatively affect the availability and cost of both short-term and long-term financing. Also, cash flows from operations may be impacted by the timing of commencement and completion and, potentially, cost overruns of large projects. If cash flows from operations were to be significantly reduced or we were unable to borrow under acceptable terms, we would likely first reduce or postpone discretionary capital expenditures (not related to safety) and investments in new businesses. We monitor our ability to finance the needs of our operating, investing and financing activities in a manner consistent with our intention to maintain our investment-grade credit ratings and capital structure.

We have significant investments in several trusts to provide for future payments of pensions and other postretirement benefits, and nuclear decommissioning. Changes in asset values, which are dependent on the activity in the equity and fixed income markets, have not affected the trust funds' abilities to make required payments. However, changes in asset values, along with a number of other factors such as changes to discount rates, assumed rates of return, mortality tables, and regulations, may impact funding requirements for pension and other postretirement benefit plans and SDG&E's NDT. At the California Utilities, funding requirements are generally recoverable in rates.

Available Funds

Our lines of credit provide liquidity and support commercial paper. As we discuss in Note 7 of the Notes to Consolidated Financial Statements, Sempra Energy, Sempra Global, SDG&E and SoCalGas each have five-year revolving credit agreements expiring in 2024. These credit agreements replaced the credit agreements that were set to expire in 2020. The table below shows the amount of available funds at December 31, 2019, including available unused credit on these primary U.S. credit facilities. In addition, IEnova has \$1.9 billion in lines of credit, with approximately \$706 million available unused credit at December 31, 2019.

AVAILABLE FUNDS AT DECEMBER 31, 2019

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Unrestricted cash and cash equivalents ⁽¹⁾	\$ 108	\$ 10	\$ 10
Available unused credit ⁽²⁾⁽³⁾	4,351	1,420	120

⁽¹⁾ Amounts at Sempra Energy Consolidated include \$60 million held in non-U.S. jurisdictions. We discuss repatriation in Note 8 of the Notes to Consolidated Financial Statements.

⁽²⁾ Available unused credit is the total available on Sempra Energy's, Sempra Global's, SDG&E's and SoCalGas' credit facilities that we discuss in Note 7 of the Notes to Consolidated Financial Statements.

⁽³⁾ Because the commercial paper programs are supported by these lines, we reflect the amount of commercial paper outstanding as a reduction to the available unused credit.

Short-Term Borrowings

We use short-term debt primarily to meet liquidity requirements, fund shareholder dividends, and temporarily finance capital expenditures, acquisitions or start-ups. Our corporate short-term, unsecured promissory notes, or commercial paper, were our primary sources of short-term debt funding in 2019. Our California Utilities use short-term debt primarily to meet working capital needs.

The following table shows selected statistics for our commercial paper borrowings for 2019:

COMMERCIAL PAPER STATISTICS*(Dollars in millions)*

	Sempra Energy Consolidated	SDG&E	SoCalGas
Amount outstanding at December 31, 2019	\$ 2,334	\$ 80	\$ 630
Weighted-average interest rate at December 31, 2019	2.062%	1.965%	1.864%
Maximum month-end amount outstanding during 2019 ⁽¹⁾	\$ 3,061	\$ 405	\$ 630
Monthly weighted-average amount outstanding during 2019	\$ 2,243	\$ 127	\$ 196
Monthly weighted-average interest rate during 2019	2.618%	2.736%	2.165%

⁽¹⁾ The largest amount outstanding at the end of the last day of any month during the year.

Credit Ratings

The credit ratings of Sempra Energy, SDG&E and SoCalGas remained at investment grade levels in 2019.

CREDIT RATINGS AT DECEMBER 31, 2019

	Sempra Energy	SDG&E	SoCalGas
Moodys	Baa1 with a negative outlook	Baa1 with a positive outlook	A1 with a negative outlook
S&P	BBB+ with a negative outlook	BBB+ with a stable outlook	A with a negative outlook
Fitch	BBB+ with a stable outlook	BBB+ with a stable outlook	A with a stable outlook

A downgrade of Sempra Energy's or any of its subsidiaries' credit ratings or rating outlooks may result in a requirement for collateral to be posted in the case of certain financing arrangements and may materially and adversely affect the market prices of their equity and debt securities, the rates at which borrowings are made and commercial paper is issued, and the various fees on their outstanding credit facilities. This could make it more costly for Sempra Energy, SDG&E, SoCalGas and Sempra Energy's other subsidiaries to issue debt securities, to borrow under credit facilities and to raise certain other types of financing. We provide additional information about our credit ratings at Sempra Energy, SDG&E and SoCalGas in "Item 1A. Risk Factors."

Sempra Energy has agreed that, if the credit rating of Oncor's senior secured debt by any of the three major rating agencies falls below BBB (or the equivalent), Oncor will suspend dividends and other distributions (except for contractual tax payments), unless otherwise allowed by the PUCT. Oncor's senior secured debt was rated A2, A+ and A at Moody's, S&P and Fitch, respectively, at December 31, 2019.

Sempra Energy, SDG&E and SoCalGas have committed lines of credit to provide liquidity and to support commercial paper. Borrowings under these facilities bear interest at benchmark rates plus a margin that varies with market index rates and each borrower's credit rating. Each facility also requires a commitment fee on available unused credit that may be impacted by each borrower's credit rating. Depending on the severity of the downgrade:

- If Sempra Energy were to experience a ratings downgrade from its current level, the rate at which borrowings bear interest would increase by 25 to 50 bps. The commitment fee on available unused credit would also increase 5 to 10 bps.
- If SDG&E were to experience a ratings downgrade from its current level, the rate at which borrowings bear interest would increase by 25 to 50 bps. The commitment fee on available unused credit would also increase 5 to 10 bps.
- If SoCalGas were to experience a ratings downgrade from its current level, the rate at which borrowings bear interest would increase by 12.5 to 25 bps. The commitment fee on available unused credit would also increase 2.5 to 5 bps.

Sempra Energy's and SDG&E's credit ratings also may affect their respective credit limits related to derivative instruments, as we discuss in Note 11 of the Notes to Consolidated Financial Statements.

Loans to/from Affiliates

At December 31, 2019, Sempra Energy had a \$742 million loan to an unconsolidated affiliate and \$195 million of loans from unconsolidated affiliates.

California Utilities

SDG&E's and SoCalGas' operations have historically provided relatively stable earnings and liquidity. Their future performance will depend primarily on the ratemaking and regulatory process, environmental regulations, economic conditions, actions by the California legislature and the changing energy marketplace. From 2020 through 2024, SDG&E expects to make capital expenditures of approximately \$8.9 billion and SoCalGas expects to make capital expenditures of approximately \$9.0 billion for transmission and distribution improvements, including pipeline and wildfire safety. These amounts are estimates and the actual amounts of capital expenditures may differ, perhaps substantially.

SDG&E and SoCalGas expect that the available unused credit from their credit facilities described above, cash flows from operations, and debt issuances will continue to be adequate to fund their respective operations and capital expenditures. The California Utilities manage their capital structure and pay dividends when appropriate and as approved by their respective boards of directors.

As we discuss in Note 4 of the Notes to Consolidated Financial Statements, changes in balancing accounts for significant costs at SDG&E and SoCalGas, particularly a change between over- and undercollected status, including commodity and transportation balancing accounts, may have a significant impact on cash flows. These changes generally represent the difference between when costs are incurred and when they are ultimately recovered in rates through billings to customers.

SDG&E

Wildfire Fund

On July 12, 2019, the Governor of California signed into law the Wildfire Legislation, which addresses certain important issues related to catastrophic wildfires in the State of California and their impact on electric IOUs. We describe the Wildfire Legislation and related accounting treatment in Note 1 of the Notes to Consolidated Financial Statements.

The Wildfire Legislation established the Wildfire Fund to provide liquidity to SDG&E, PG&E and Edison to pay IOU wildfire-related claims in the event that the governmental agency responsible for determining causation determines the applicable IOU's equipment caused the ignition of a wildfire, the primary insurance coverage is exceeded and certain other conditions are satisfied. The primary purpose of the Wildfire Fund is to pool resources provided by shareholders and ratepayers of the IOUs and make those resources available to reimburse the IOUs for third-party wildfire claims incurred after July 12, 2019, the effective date of the Wildfire Legislation, subject to certain limitations.

SDG&E recorded a Wildfire Fund asset for committed shareholder contributions to the Wildfire Fund. SDG&E is exposed to the risk that any California electric IOU may incur third-party wildfire claims for which they will seek recovery from the Wildfire Fund. In such a situation, SDG&E may recognize a reduction of its Wildfire Fund asset and record a charge against earnings in the period when there is a reduction of the available coverage due to recoverable claims from the IOUs. As a result, if any California electric IOU's equipment is determined to be a cause of a fire, it could have a material adverse effect on SDG&E's and Sempra Energy's financial condition and results of operation up to the carrying value of our Wildfire Fund asset. In addition, the Wildfire Fund could be completely exhausted due to fires in the other California electric IOUs' service territories, by fires in SDG&E's service territory or by a combination thereof. In the event that the Wildfire Fund is materially diminished, exhausted or terminated, SDG&E will lose the protection afforded by the Wildfire Fund, and as a consequence, a fire in SDG&E's service territory could cause a material adverse effect on SDG&E's and Sempra Energy's cash flows, results of operations and financial condition.

SoCalGas

SoCalGas' performance will also depend on the resolution of legal, regulatory and other matters concerning the Leak at the Aliso Canyon natural gas storage facility, which we discuss below, in Note 16 of the Notes to Consolidated Financial Statements, and in "Item 1A. Risk Factors."

Aliso Canyon Natural Gas Storage Facility Gas Leak

In October 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility located in Los Angeles County. In February 2016, CalGEM confirmed that the well was permanently sealed. See Note 16 of the Notes to Consolidated Financial Statements for discussions of "Civil and Criminal Litigation" and "Regulatory Proceedings."

Cost Estimates, Accounting Impacts and Insurance. At December 31, 2019, SoCalGas estimates its costs related to the Leak are \$1,116 million (the cost estimate). This estimate may rise significantly as more information becomes available. Approximately

51% of the cost estimate is for the temporary relocation program (including cleaning costs and certain labor costs). A substantial portion of the cost estimate has been paid, and \$9 million is accrued as Reserve for Aliso Canyon Costs and \$7 million is accrued in Deferred Credits and Other as of December 31, 2019 on SoCalGas' and Sempra Energy's Consolidated Balance Sheets.

Except for the amounts paid or estimated to settle certain actions, the cost estimate does not include litigation or regulatory costs as it is not possible at this time to predict the outcome of these actions or reasonably estimate the costs to defend or resolve the actions or the amount of damages, restitution, or civil, administrative or criminal fines, sanctions, penalties or other costs or remedies that may be imposed or incurred, which could be significant. The cost estimate also does not include certain other costs incurred by Sempra Energy associated with defending against shareholder derivative lawsuits and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate.

Excluding directors' and officers' liability insurance, we have at least four kinds of insurance policies that together we estimate provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. We have received insurance payments for many of the costs, including temporary relocation and associated processing costs, control-of-well expenses, costs of the government-ordered response to the Leak, legal costs and lost gas. We intend to pursue the full extent of our insurance coverage for the costs we have incurred or may incur. There can be no assurance that we will be successful in obtaining additional insurance recovery for these costs. If any costs are not covered by insurance (including any costs in excess of applicable policy limits), if there are significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As of December 31, 2019, we recorded the expected recovery of the cost estimate related to the Leak of \$339 million as Insurance Receivable for Aliso Canyon Costs on SoCalGas' and Sempra Energy's Consolidated Balance Sheets. This amount is net of insurance retentions and \$747 million of insurance proceeds we received through December 31, 2019. If we were to conclude that this receivable or a portion of it is no longer probable of recovery from insurers, some or all of this receivable would be charged against earnings, which could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Natural Gas Storage Operations and Reliability. Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. As a result of the Leak, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility beginning in October 2015 and, following a comprehensive safety review and authorization by CalGEM and the CPUC's Executive Director, resumed limited injection operations in July 2017.

During the suspension period, SoCalGas advised the California ISO, CEC, CPUC and PHMSA of its concerns that the inability to inject natural gas into the Aliso Canyon natural gas storage facility posed a risk to energy reliability in Southern California. The CPUC has issued a series of directives to SoCalGas specifying the range of working gas to be maintained in the Aliso Canyon natural gas storage facility as well as protocols for the withdrawal of gas, to help ensure safe and reliable natural gas service, while helping to maintain stable energy prices in Southern California. Limited withdrawals of natural gas from the facility were made in 2018 and 2019 to augment natural gas supplies during critical demand periods.

If the Aliso Canyon natural gas storage facility were to be permanently closed, or if future cash flows were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2019, the Aliso Canyon natural gas storage facility had a net book value of \$769 million. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and SoCalGas' and Sempra Energy's results of operations, cash flows and financial condition may be materially adversely affected.

Sempra Texas Utilities

Oncor's business is capital intensive, and it relies on external financing as a significant source of liquidity for its capital requirements. From 2020 through 2024, Oncor expects to make capital expenditures of approximately \$11.9 billion to meet the projected growth within its service territory, of which approximately \$9.5 billion represents our proportionate ownership share. We expect Oncor will fund approximately \$8.8 billion of these capital expenditures and Sempra Energy will fund approximately \$0.7 billion through capital contributions to Oncor. These amounts are estimates and the actual amounts of capital expenditures and investments may differ, perhaps substantially. In the past, Oncor has financed a substantial portion of its cash needs from operations and with proceeds from indebtedness. In the event that Oncor fails to meet its capital requirements, we may be required to make additional capital contributions to Oncor, or if Oncor is unable to access sufficient capital to finance its ongoing needs, we may elect to make additional capital contributions to Oncor which could be substantial and which would reduce the cash available to us for other purposes, could increase our indebtedness and could ultimately materially adversely affect our results of operations, financial condition and prospects. In that regard, our commitments to the PUCT prohibit us from making loans to Oncor. As a result, if Oncor requires additional financing and cannot obtain it from other sources, we may elect to make a capital contribution to Oncor.

Oncor's ability to pay dividends may be limited by factors such as its credit ratings, regulatory capital requirements, debt-to-equity ratio approved by the PUCT and other restrictions. In addition, Oncor will not pay dividends if a majority of Oncor's independent directors or any minority member director determines it is in the best interests of Oncor to retain such amounts to meet expected future requirements.

Sempra Mexico

Sempra Mexico is currently building terminals for the receipt, storage, and delivery of liquid fuels in the new port of Veracruz and vicinity of Mexico City, Puebla, Topolobampo, Manzanillo, and Ensenada. Sempra Mexico is also developing new solar facilities in Juárez, Chihuahua, and Benjamin Hill, Sonora, through which it will supply renewable energy to several private companies. We expect the projects to commence commercial operation on various dates in 2020 and 2021. From 2020 through 2024, Sempra Mexico and its unconsolidated JV's expect to make capital expenditures and investments of approximately \$2.0 billion, which represents our proportionate ownership share before NCI. We expect Sempra Mexico's unconsolidated JV's will fund approximately \$0.1 billion of these capital expenditures, which represents our proportionate ownership share, and Sempra Mexico will fund approximately \$1.9 billion. These amounts are estimates and the actual amounts of capital expenditures and investments may differ, perhaps substantially. We expect to fund these capital expenditures and investments, operations and dividends at IEnova with available funds, including credit facilities, and funds internally generated by the Sempra Mexico businesses, as well as funds from project financing, sales of securities, interim funding from the parent or affiliates, and partnering in JVs.

In 2019, 2018 and 2017, IEnova paid dividends of \$73 million, \$71 million and \$67 million, respectively, to its minority shareholders.

IEnova's shareholders approved IEnova's repurchases of its own shares up to a maximum amount of \$250 million. Repurchases shall not exceed IEnova's total net profits, including retained earnings, as stated in its financial statements. In 2019, IEnova repurchased 2,620,000 shares of its outstanding common stock held by NCI for approximately \$10 million, resulting in an increase in Sempra Energy's ownership interest in IEnova from 66.5% to 66.6% as of December 31, 2019.

As we discuss in Note 16 of the Notes to Consolidated Financial Statements, IEnova has received force majeure payments for the Guaymas-El Oro segment of the Sonora pipeline from August 2017 to August 2019, after damage to that segment of the pipeline made it inoperable and a court order prevented repairs to put the pipeline back in service. In July 2019, the CFE filed a request for arbitration generally to nullify certain contract terms that provide for fixed capacity payments in instances of force majeure and made a demand for substantial damages in connection with the force majeure event. In September 2019, the arbitration process ended when IEnova and the CFE reached an agreement to modify the tariff structure and extend the term of the contract for 10 years. Under the revised agreement, the CFE will resume making payments only when the damaged section of the Guaymas-El Oro segment of the Sonora pipeline is repaired. If the pipeline is not repaired by May 15, 2020 and the parties do not agree on a new service start date, IEnova retains the right to terminate the contract and seek to recover its reasonable and documented costs and lost profits. If IEnova is unable to make such repairs (which have not commenced) and resume operations in the Guaymas-El Oro segment of the Sonora pipeline or if IEnova terminates the contract and is unable to obtain recovery, there may be a material adverse impact on Sempra Energy's results of operations and cash flows and our ability to recover the carrying value of our investment.

The ability to successfully complete major construction projects is subject to a number of risks and uncertainties. For a discussion of these risks and uncertainties, see "Item 1A. Risk Factors."

Sempra LNG

Sempra LNG develops and builds natural gas liquefaction facilities and is pursuing the development of five strategically located LNG projects in North America with a long-term goal of delivering natural gas to the largest world markets. We expect Sempra LNG to require funding for the development and expansion of its portfolio of projects, which may be financed through a combination of operating cash flow, funding from the parent, project financing and partnering in JVs, including its JV partnership with IEnova in ECA LNG JV. From 2020 through 2024, Sempra LNG and its unconsolidated JV expect to make capital expenditures and investments of approximately \$2.4 billion, which represents our proportionate ownership share before NCI. We expect Sempra LNG's unconsolidated JV will fund approximately \$0.1 billion of these capital expenditures, which represents our proportionate ownership share, and Sempra LNG will fund approximately \$2.3 billion. These amounts are estimates and the actual amounts of capital expenditures and investments may differ, perhaps substantially. These capital expenditures are primarily for construction of the proposed mid-scale liquefaction project at ECA LNG JV, which we discuss below.

North American natural gas prices, when in decline, negatively affect profitability at Sempra LNG. Also, a reduction in projected global demand for LNG could result in increased competition among those developing projects in an environment of declining LNG demand, such as the Sempra Energy-sponsored LNG export initiatives. For a discussion of these risks and other risks involving changing commodity prices, see "Item 1A. Risk Factors."

Cameron LNG JV Three-Train Liquefaction Project

Sempra LNG, through its interest in Cameron LNG JV, is constructing a three-train natural gas liquefaction export facility with an expected export capability of 12 Mtpa of LNG. Construction on the three-train liquefaction project began in the second half of 2014 under an EPC contract with a JV between CB&I, LLC (as assignee of CB&I Shaw Constructors, Inc.), a wholly owned subsidiary of McDermott International, Inc., and Chiyoda International Corporation, a wholly owned subsidiary of Chiyoda Corporation. The majority of the construction is project-financed at the JV, with most or all of the remainder of the capital requirements provided by the project partners, including Sempra Energy, through equity contributions under the project equity agreements. We expect that our remaining equity requirements to complete the project will be met by a combination of our share of cash generated from each liquefaction train as it comes on line and, if required, additional cash contributions. Sempra Energy signed guarantees for 50.2% of Cameron LNG JV's financing obligations for a maximum amount of up to \$4.0 billion. The guarantees will terminate upon satisfaction of certain conditions, including all three trains achieving financial completion by September 30, 2021 (with up to an additional 365 days extension beyond such date permitted in cases of force majeure). However, if Cameron LNG JV fails to satisfy the financial completion criteria, a demand could be made under the guarantee for Sempra Energy's 50.2% of Cameron LNG JV's obligations under the financing arrangements then due and payable.

In August 2019, commercial operation of Train 1 commenced under Cameron LNG JV's tolling agreements. In February 2020, Train 2 reached substantial completion and we expect to commence commercial operation in the coming days. Based on a number of factors, we believe it is reasonable to expect Train 3 will commence commercial operation in the third quarter of 2020. These factors include, among others, the EPC contractor's progress to date, the current commissioning activities, the remaining work to be performed, the project schedules received from the EPC contractor, Cameron LNG JV's own review of the project schedules, the assumptions underlying such schedules, and the inherent risks in constructing and testing facilities such as the Cameron LNG JV liquefaction facility.

Large-scale construction projects like the design, development and construction of the Cameron LNG JV liquefaction facility involve numerous risks and uncertainties, including among others, the potential for unforeseen engineering challenges, severe weather events, substantial construction delays and increased costs. In addition, once completed, the facility may be subject to design flaws, equipment failures and other operational issues, which could cause the facility to suspend operations or operate at a reduced capacity.

Cameron LNG JV has a lump-sum, turnkey EPC contract, and if the contractor becomes unwilling or unable to perform according to the terms and timetable of the EPC contract, the project could face substantial construction delays and potentially significantly increased costs. In January 2020, McDermott International, Inc. filed for bankruptcy protection under Chapter 11 of the U.S. bankruptcy code. McDermott International, Inc. has stated that it expects all of its projects, including the three-train liquefaction project at Cameron LNG JV, to continue on an uninterrupted basis. However, we cannot be certain the Cameron LNG JV project will not be interrupted. If the contractor defaults under the EPC contract due to the bankruptcy of McDermott International, Inc. or for any other reason, such default could result in Cameron LNG JV's engagement of a substitute contractor. The inability to complete the project in a timely manner or within our current expectations, cost overruns, and the other risks described above could have a material adverse effect on our business, results of operations, cash flows, financial condition, credit ratings and/or prospects.

For a discussion of our investment in Cameron LNG JV, JV financing, Sempra Energy guarantees, the risks discussed above and other risks relating to the development of the Cameron LNG JV liquefaction project that could adversely affect our future performance, see Note 6 of the Notes to Consolidated Financial Statements and “Item 1A. Risk Factors.”

Proposed Cameron Liquefaction Expansion

Cameron LNG JV has received the major permits and FTA and non-FTA approvals necessary to expand the current configuration of the Cameron LNG JV liquefaction project from the current three liquefaction trains under construction. The proposed expansion project includes up to two additional liquefaction trains and up to two additional full containment LNG storage tanks (one of which was permitted with the original three-train project).

Expansion of the Cameron LNG liquefaction facility beyond the first three trains is subject to certain restrictions and conditions under the JV project financing agreements, including among others, timing restrictions on expansion of the project unless appropriate prior consent is obtained from the project lenders. Under the Cameron LNG JV equity agreements, the expansion of the project requires the unanimous consent of all the partners, including with respect to the equity investment obligation of each partner. Discussions among all the Cameron LNG JV partners have been taking place regarding how an expansion may be structured and we expect that discussions will continue. There can be no assurance that a mutually agreeable expansion structure will be agreed upon unanimously by the Cameron LNG JV members, which if not accomplished in a timely manner, could materially and adversely impact the development of the expansion project. In light of this, we are unable to predict whether or when Cameron LNG JV might be able to move forward on expansion of the Cameron LNG liquefaction facility beyond the first three trains.

In November 2018, Sempra Energy and TOTAL S.A. entered into an MOU that provides a framework for cooperation for the development of the potential Cameron LNG expansion project and the potential ECA LNG JV liquefaction-export project that we describe below in “ECA LNG JV Liquefaction Project.” The MOU contemplates TOTAL S.A. potentially contracting for up to approximately 9 Mtpa of LNG offtake across these two development projects and provides TOTAL S.A. the option to acquire an equity interest in the proposed ECA LNG JV project. In addition, in October 2019, Sempra Energy and Mitsui & Co., Ltd. entered into an MOU that provides a framework for potential offtake by Mitsui & Co., Ltd. from the potential Cameron LNG expansion project and the second phase of the potential ECA LNG JV project, as well as Mitsui & Co., Ltd.’s potential acquisition of an equity interest in the second phase of the potential ECA LNG JV project. The ultimate participation of TOTAL S.A. and Mitsui & Co., Ltd. remains subject to negotiation and finalization of definitive agreements, among other factors, and TOTAL S.A. and Mitsui & Co., Ltd. have no commitment to participate in the projects.

ECA LNG JV Liquefaction Project

Through a JV agreement, Sempra LNG and IEnova are developing a proposed natural gas liquefaction project at IEnova’s existing ECA LNG Regasification terminal. The proposed liquefaction facility project, which is planned for development in two phases (a mid-scale project referred to as ECA LNG JV Phase 1 and a large-scale project referred to as ECA LNG JV Phase 2), is being developed to provide buyers with direct access to west coast LNG supplies. The ECA LNG Regasification facility currently has profitable long-term regasification contracts for 100% of the regasification facility’s capacity through 2028, making the decisions on whether and how to pursue the ECA LNG JV Phase 2 liquefaction project dependent in part on whether the investment in a large-scale liquefaction facility would, over the long term, be more beneficial financially than continuing to supply regasification services under our existing contracts.

In March 2019, ECA LNG JV received two authorizations from the DOE to export U.S.-produced natural gas to Mexico and to re-export LNG to non-FTA countries from its ECA LNG JV Phase 1 and ECA LNG JV Phase 2 projects in development.

In June 2018, we selected a TechnipFMC plc and Kiewit Corporation partnership as the EPC contractor for ECA LNG JV Phase 1, subject to reaching a definitive agreement. In the coming days, we expect to sign a lump-sum, turn-key EPC contract with TechnipFMC for the engineering, procurement and construction of a one-train natural gas liquefaction export facility with a nameplate capacity of 3.25 Mtpa and offtake capacity of 2.5 Mtpa. If entered into, we will have no obligation to move forward on the EPC contract, and we may release TechnipFMC to perform portions of the work pursuant to limited notices to proceed. We plan to fully release TechnipFMC to perform all the work to construct ECA LNG JV Phase 1 only after we reach a final investment decision with respect to the project, which we expect to make in the first quarter of 2020, and after certain other conditions are met. Kiewit Corporation, which we previously expected to be part of the EPC contractor JV, may be a sub-contractor to TechnipFMC, subject to the terms of the EPC contract. The total price of the EPC contract for ECA LNG JV Phase 1 is estimated at approximately \$1.5 billion. We estimate that capital expenditures for ECA LNG JV Phase 1 will approximate \$1.9 billion, including capitalized interest and project contingency. The actual cost of the EPC contract and the actual amount of these capital expenditures may differ, perhaps substantially, from our estimates.

In November 2018, Sempra LNG and IEnova signed Heads of Agreements with affiliates of TOTAL S.A., Mitsui & Co., Ltd. and Tokyo Gas Co., Ltd. for ECA LNG JV Phase 1. Each Heads of Agreement for ECA LNG JV Phase 1 contemplates the parties negotiating definitive 20-year LNG sales and purchase agreements for the purchase of approximately 0.8 Mtpa of LNG from the ECA LNG JV facility, but does not obligate the parties to ultimately execute any agreements or participate in the project. The ultimate participation of TOTAL S.A., Mitsui & Co., Ltd. and Tokyo Gas Co., Ltd. in the potential ECA LNG JV Phase 1 project as contemplated by the Heads of Agreements signed in November 2018 remains subject to finalization of definitive agreements, among other factors, and none of these parties has committed to participate in this project.

The development of the ECA LNG JV Phase 1 and ECA LNG JV Phase 2 projects is subject to numerous risks and uncertainties, including obtaining binding customer commitments; the receipt of a number of permits and regulatory approvals; obtaining financing; negotiating and completing suitable commercial agreements, including definitive EPC contracts, equity acquisition and governance agreements, LNG sales agreements and gas supply and transportation agreements; reaching a final investment decision; and other factors associated with this potential investment. In addition, as we discuss in Note 16 of the Notes to Consolidated Financial Statements, an unfavorable decision on certain property disputes and permit challenges could materially and adversely affect the development of these projects. For a discussion of these risks, see "Item 1A. Risk Factors."

Port Arthur LNG Liquefaction Project

Sempra LNG is developing a proposed natural gas liquefaction project on a greenfield site that it owns in the vicinity of Port Arthur, Texas, located along the Sabine-Neches waterway. Sempra LNG received authorizations from the DOE in August 2015 and May 2019 that collectively permit the LNG to be produced from the proposed Port Arthur LNG project to be exported to all current and future FTA and non-FTA countries.

In April 2019, the FERC approved the siting, construction and operation of the first phase of the proposed Port Arthur LNG liquefaction facility, along with certain natural gas pipelines, including the Louisiana Connector Pipeline, that could be used to supply feed gas to the liquefaction facility, assuming the project is completed. We expect to make a final investment decision in the third quarter of 2020.

In June 2018, we selected Bechtel as the EPC contractor for the proposed Port Arthur LNG liquefaction project, subject to reaching a definitive agreement. We are in the final stages of negotiating and finalizing a definitive EPC contract for the project. If we execute the EPC contract, we will have no obligation to move forward on the EPC contract, and we may release Bechtel to perform portions of the work pursuant to limited notices to proceed. We plan to fully release Bechtel to perform all the work to construct the Port Arthur LNG liquefaction project only after we reach a final investment decision with respect to the project and after certain other conditions are met, including project financing. The potential EPC contract contemplates the construction of two liquefaction trains with a total nameplate capacity of 13.5 Mtpa and a total offtake capacity of approximately 10 Mtpa.

In December 2018, Polish Oil & Gas Company (PGNiG) and Port Arthur LNG entered into a definitive 20-year agreement for the sale and purchase of 2 Mtpa of LNG per year from the Port Arthur LNG liquefaction project. Under the agreement, LNG purchases by PGNiG from Port Arthur LNG will be made on a free-on-board basis, with PGNiG responsible for shipping the LNG from the Port Arthur facility to the final destination. Port Arthur LNG will manage the gas pipeline transportation, liquefaction processing and cargo loading. The agreement is subject to certain conditions precedent, including Port Arthur LNG making a positive final investment decision within certain agreed timelines. The failure of these conditions precedent to be satisfied or waived within the agreed timelines can result in the termination of the agreement.

In May 2019, Aramco Services Company and Sempra LNG signed a Heads of Agreement for the negotiation and finalization of a definitive 20-year LNG sale and purchase agreement for 5 Mtpa of LNG offtake. The Heads of Agreement also includes the negotiation and finalization of a 25% equity investment in the project. In January 2020, Aramco Services Company and Sempra LNG signed an Interim Project Participation Agreement, which sets forth certain mechanisms for the parties to work towards receipt of corporate approvals to enter into and proceed with the transaction, execution of the transaction agreements and the fulfillment or waiver of the conditions precedent contemplated by these agreements, making a final investment decision and other pre-final investment decision activities. The Heads of Agreement and Interim Project Participation Agreement do not obligate the parties to ultimately execute any agreements or participate in the project.

In February 2020, Sempra LNG filed a FERC application for the siting, construction and operation of a second phase at the proposed Port Arthur LNG facility, including the potential addition of two liquefaction trains.

In November 2019, Port Arthur LNG commenced the relocation and upgrade of approximately three miles of highway where the Port Arthur LNG liquefaction project would be located.

Development of the Port Arthur LNG liquefaction project is subject to a number of risks and uncertainties, including obtaining additional customer commitments; completing the required commercial agreements, such as equity acquisitions and governance

agreements, LNG sales agreements and gas supply and transportation agreements; completing construction contracts; securing all necessary permits and approvals; obtaining financing and incentives; reaching a final investment decision; and other factors associated with the potential investment. For a discussion of these risks, see “Item 1A. Risk Factors.”

Discontinued Operations

As we discuss in Note 5 of the Notes to Consolidated Financial Statements, in January 2019, our board of directors approved a plan to sell our South American businesses. In September 2019, we entered into an agreement to sell our equity interests in our Peruvian businesses for an aggregate base purchase price of \$3.59 billion, subject to customary closing adjustments for working capital and changes in net indebtedness. In October 2019, we entered into an agreement to sell our equity interests in our Chilean businesses for an aggregate base purchase price of \$2.23 billion, subject to customary adjustments for working capital and changes in net indebtedness and other adjustments. We expect the sales to close in the first half of 2020.

Our utilities in South America have historically provided relatively stable earnings and liquidity. We intend to use the proceeds from the sales to focus on capital investment in North America to support additional growth opportunities and strengthen our balance sheet by reducing debt. We expect the cash provided by earnings from our capital investment will exceed the absence of cash flows from these discontinued operations. However, there can be no assurance that we will derive these anticipated benefits. Further, there can be no assurance that we will be able to redeploy the capital that we obtain from such sales, if completed, in a way that would result in cash flows or earnings exceeding those historically generated by these businesses.

SOURCES AND USES OF CASH

The following tables include only significant changes in cash flow activities for each of our registrants.

CASH FLOWS FROM OPERATING ACTIVITIES
(Dollars in millions)

Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2019	\$ 3,088	\$ 1,090	\$ 868
2018	3,516	1,584	1,013
Change	\$ (428)	\$ (494)	\$ (145)
Change in net undercollected regulatory balancing accounts (including long-term amounts in regulatory assets)	\$ (513)	\$ (254)	\$ (259)
SDG&E's initial shareholder contribution to the Wildfire Fund in September 2019	(323)	(323)	
Change in income taxes receivable/payable, net, primarily due to higher payments	(254)	(149)	(170)
Net decrease in Reserve for Aliso Canyon Costs due to \$119 higher payments and \$81 lower accruals	(200)		(200)
Deferred revenue due to the TCJA at the California Utilities in 2018	(123)	(62)	(61)
Cash payments for operating leases in 2019	(101)	(33)	(27)
Decrease in interest payable primarily due to higher payments	(86)		
Higher contributions to Rabbi Trust	(81)		
Higher net income, adjusted for noncash items included in earnings	442	266	336
Change in intercompany activities with discontinued operations (including \$334 dividends received from our South American businesses)	308		
Change in long-term GHG obligations	185		174
Net decrease in Insurance Receivable for Aliso Canyon Costs due to \$84 higher insurance proceeds received and \$81 lower accruals	165		165
Higher distributions of earnings from Oncor Holdings	97		
Change in accounts payable			(78)
Lower (higher) purchases of GHG allowances		50	(43)
Other	(38)	11	18
Change in net cash flows from discontinued operations	94		
	\$ (428)	\$ (494)	\$ (145)
Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2018	\$ 3,516	\$ 1,584	\$ 1,013
2017	3,625	1,547	1,306
Change	\$ (109)	\$ 37	\$ (293)
Lower net income, adjusted for noncash items included in earnings	\$ (344)	\$ (22)	
Net increase in Insurance Receivable for Aliso Canyon Costs primarily due to \$203 lower insurance proceeds received and \$30 higher accruals	(231)		\$ (231)
Change in accounts receivable	(174)	106	(159)
Higher purchases of GHG allowances	(161)	(81)	(64)
Change in income taxes receivable/payable, net	166	(113)	
Change in net undercollected regulatory balancing accounts (including long-term amounts in regulatory assets)	152	152	
Distributions of earnings from Oncor Holdings	149		
Deferred revenue due to the TCJA at the California Utilities in 2018	143	75	68
Change in interest payable	80		
Change in intercompany activities with discontinued operations (including \$69 dividends received from our Peruvian businesses)	62		
Change in accounts payable		(76)	
Change in inventory	74		64
Other	(35)	(4)	29
Change in net cash flows from discontinued operations	10		
	\$ (109)	\$ 37	\$ (293)

CASH FLOWS FROM INVESTING ACTIVITIES*(Dollars in millions)*

Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2019	\$ (4,593)	\$ (1,522)	\$ (1,438)
2018	(12,470)	(1,542)	(1,531)
Change	\$ 7,877	\$ 20	\$ 93
Acquisition of investment in Oncor Holdings in March 2018	\$ 9,556		
Dividends received from Peruvian businesses in discontinued operations	583		
Dividends received from Chilean businesses in discontinued operations	394		
Net proceeds from sale of Sempra LNG's non-utility natural gas storage assets	322		
Lower expenditures for investments in Cameron LNG JV and IMG JV	245		
Lower advances to unconsolidated affiliates	79		
Higher contributions to Oncor Holdings primarily to fund Oncor's purchase of InfraREIT in May 2019	(1,357)		
Lower net proceeds from sale of certain Sempra Renewables' assets and investments (\$569 in 2019 and \$1,571 in 2018)	(1,002)		
Contributions to Peruvian businesses in discontinued operations	(583)		
Contributions to Chilean businesses in discontinued operations	(394)		
(Increase) decrease in capital expenditures	(164)	\$ 20	\$ 99
Acquisition of investment in Sharyland Holdings in May 2019	(95)		
Other	40		(6)
Change in net cash flows from discontinued operations	253		
	\$ 7,877	\$ 20	\$ 93
Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2018	\$ (12,470)	\$ (1,542)	\$ (1,531)
2017	(4,885)	(1,515)	(1,363)
Change	\$ (7,585)	\$ (27)	\$ (168)
Increase in expenditures for investments and acquisitions primarily for the March 2018 acquisition of investment in Oncor Holdings	\$ (9,899)		
Net proceeds from the December 2018 sale of certain Sempra Renewables' assets and investments	1,571		
Lower advances to unconsolidated affiliates	410		
Decrease (increase) in capital expenditures	161		\$ (171)
Other	1	\$ (27)	3
Change in net cash flows from discontinued operations	171		
	\$ (7,585)	\$ (27)	\$ (168)

CASH FLOWS FROM FINANCING ACTIVITIES*(Dollars in millions)*

Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2019	\$ 1,475	\$ 405	\$ 562
2018	8,850	(34)	528
Change	\$ (7,375)	\$ 439	\$ 34
Higher issuances of long-term debt in 2018, including increases at Sempra Energy Consolidated primarily to fund the March 2018 acquisition of investment in Oncor Holdings and at SDG&E from issuance of a new loan by OMEC LLC to partially repay OMEC's project financing loan	\$ (4,826)	\$ (218)	\$ (600)
Net proceeds from 2018 issuances of mandatory convertible preferred stock	(2,258)		
Lower net proceeds from issuances of common stock primarily related to settlements of forward sale agreements	(442)		
(Higher) lower payments on long-term debt and finance leases	(217)	218	494
(Higher) lower dividends paid	(169)	250	(100)
Change in intercompany activities with discontinued operations primarily related to intercompany loans	(157)		
Higher payments for commercial paper and other short-term debt with maturities greater than 90 days	(108)		
Increase (decrease) in short-term debt, net	740	(249)	234
Higher issuances of commercial paper and other short-term debt with maturities greater than 90 days	195		
Advances from unconsolidated affiliates	155		
Higher capital contributions from OMEC LLC to repay OMEC's loan	110	110	
Equity contribution from Sempra Energy to fund initial shareholder contribution to the Wildfire Fund		322	
Other	(31)	6	6
Change in net cash flows from discontinued operations (including \$1,311 common dividends paid offset by \$977 equity contributions received)	(367)		
	\$ (7,375)	\$ 439	\$ 34
Years ended December 31,	Sempra Energy Consolidated	SDG&E	SoCalGas
2018	\$ 8,850	\$ (34)	\$ 528
2017	1,192	(23)	53
Change	\$ 7,658	\$ (11)	\$ 475
Higher issuances of long-term debt in 2018, including increases at Sempra Energy Consolidated primarily to fund the March 2018 acquisition of investment in Oncor Holdings and at SDG&E from issuance of a new loan by OMEC LLC to partially repay OMEC's project financing loan	\$ 3,707	\$ 220	\$ 949
Higher net proceeds from issuances of common stock in 2018 primarily related to settlements of forward sale agreements	2,225		
Net proceeds from 2018 issuances of mandatory convertible preferred stock	2,258		
Higher issuances of commercial paper and other short-term debt with maturities greater than 90 days	960		
Capital contribution from OMEC LLC in 2018 to partially repay OMEC's project financing loan		65	
Decrease in short-term debt, net		(215)	
Higher payments on long-term debt, including \$295 early repayment of OMEC's project financing loan by OMEC LLC at SDG&E	(775)	(306)	(500)
Change in intercompany activities with discontinued operations related to intercompany loans	(276)		
(Higher) lower dividends paid	(211)	200	
Lower proceeds from sale of NCI	(106)		
Other	(59)	25	26
Change in net cash flows from discontinued operations	(65)		
	\$ 7,658	\$ (11)	\$ 475

Expenditures for PP&E

We invest the majority of our capital in the California Utilities, primarily for transmission and distribution improvements, including pipeline and wildfire safety. The following table summarizes by segment capital expenditures for the last three years.

EXPENDITURES FOR PP&E (Dollars in millions)	Years ended December 31,		
	2019	2018	2017
SDG&E	\$ 1,522	\$ 1,542	\$ 1,555
SoCalGas	1,439	1,538	1,367
Sempra Mexico	624	368	248
Sempra Renewables	2	51	497
Sempra LNG	112	31	20
Parent and other	9	14	18
Total	\$ 3,708	\$ 3,544	\$ 3,705

Expenditures for Investments and Acquisitions

In 2019 and 2018, we invested heavily in our Sempra Texas Utilities, which included our March 2018 acquisition of Oncor Holdings and subsequent contributions to Oncor Holdings, primarily to fund Oncor's purchase of InfraREIT in May 2019. The following table summarizes by segment our investments in various JVs, as well as business and asset acquisitions.

EXPENDITURES FOR INVESTMENTS AND ACQUISITIONS ⁽¹⁾ (Dollars in millions)	Years ended December 31,		
	2019	2018	2017
Sempra Texas Utilities	\$ 1,685	\$ 9,457	\$ —
Sempra Mexico	—	100	219
Sempra Renewables	—	5	—
Sempra LNG	110	275	48
Parent and other	2	331	2
Total	\$ 1,797	\$ 10,168	\$ 269

⁽¹⁾ Net of cash and cash equivalents acquired.

Future Capital Expenditures and Investments

The amounts and timing of capital expenditures and certain investments are generally subject to approvals by various regulatory and other governmental and environmental bodies, including the CPUC, the FERC and the PUCT. In 2020, we expect to make capital expenditures and investments of approximately \$5.9 billion (which excludes capital expenditures that will be funded by unconsolidated entities), as summarized by segment in the following table.

FUTURE CAPITAL EXPENDITURES AND INVESTMENTS (Dollars in millions)	Year ended December 31, 2020
SDG&E	\$ 2,000
SoCalGas	2,000
Sempra Texas Utilities	300
Sempra Mexico	900
Sempra LNG	700
Total	\$ 5,900

We expect the majority of our capital expenditures and investments in 2020 will relate to transmission and distribution improvements at our regulated public utilities and construction of liquid fuels terminals at Sempra Mexico.

As we discuss above, from 2020 through 2024, and subject to the factors described below, which could cause these estimates to vary substantially, Sempra Energy expects to make aggregate capital expenditures and investments of approximately \$22.8 billion (which excludes capital expenditures that will be funded by unconsolidated entities), as follows: \$8.9 billion at SDG&E, \$9.0 billion at SoCalGas, \$0.7 billion at Sempra Texas Utilities and \$1.9 billion at Sempra Mexico and \$2.3 billion at Sempra LNG. Capital expenditure amounts include capitalized interest and AFUDC related to debt.

Periodically, we review our construction, investment and financing programs and revise them in response to changes in regulation, economic conditions, competition, customer growth, inflation, customer rates, the cost and availability of capital, and safety and environmental requirements.

Our level of capital expenditures and investments in the next few years may vary substantially and will depend on, among other things, the cost and availability of financing, regulatory approvals, changes in U.S. federal tax law and business opportunities providing desirable rates of return. We intend to finance our capital expenditures in a manner that will maintain our investment-grade credit ratings and capital structure.

Capital Stock Transactions

Sempra Energy

Cash provided by issuances of common and preferred stock was:

- \$1.8 billion in 2019
- \$4.5 billion in 2018
- \$47 million in 2017

Dividends

Sempra Energy

Sempra Energy paid cash dividends of:

- \$993 million for common stock and \$142 million for preferred stock in 2019
- \$877 million for common stock and \$89 million for preferred stock in 2018
- \$755 million for common stock in 2017

On December 9, 2019, Sempra Energy declared a quarterly dividend of \$0.9675 per share of common stock, \$1.50 per share of series A preferred stock and \$1.6875 per share of series B preferred stock, all of which were paid on January 15, 2020.

Dividends declared on common stock have increased in each of the last three years due to an increase in the per-share quarterly dividends approved by our board of directors to \$0.9675 in 2019 (\$3.87 annually) from \$0.895 in 2018 (\$3.58 annually) and from \$0.8225 in 2017 (\$3.29 annually).

On February 25, 2020, our board of directors approved an increase in Sempra Energy's quarterly common stock dividend to \$1.045 per share (\$4.18 annually), the first of which is payable April 15, 2020. In addition, on February 25, 2020, our board of directors declared quarterly dividends of \$1.50 per share on our series A preferred stock and \$1.6875 per share on our series B preferred stock, both payable on April 15, 2020. Declarations of dividends on our common stock and preferred stock are made at the discretion of the board of directors. While we view dividends as an integral component of shareholder return, the amount of future dividends will depend on earnings, cash flows, financial and legal requirements, and other relevant factors at that time.

SDG&E

SDG&E did not declare or pay common stock dividends in 2019. In 2018 and 2017, SDG&E paid common stock dividends to Enova and Enova paid corresponding dividends to Sempra Energy of \$250 million and \$450 million, respectively. SDG&E's dividends on common stock declared on an annual historical basis may not be indicative of future declarations and could be impacted over the next few years in order for SDG&E to maintain its authorized capital structure while managing its capital investment program.

In January 2020, SDG&E declared and paid common stock dividends to Enova and Enova declared and paid corresponding dividends to Sempra Energy of \$200 million.

Enova, a wholly owned subsidiary of Sempra Energy, owns all of SDG&E's outstanding common stock. Accordingly, dividends paid by SDG&E to Enova and dividends paid by Enova to Sempra Energy are both eliminated in Sempra Energy's Consolidated Financial Statements.

SoCalGas

In 2019 and 2018, SoCalGas paid common stock dividends to PE and PE paid corresponding dividends to Sempra Energy of \$150 million and \$50 million, respectively. SoCalGas did not declare or pay common stock dividends in 2017. SoCalGas' dividends on common stock declared on an annual historical basis may not be indicative of future declarations and could be impacted over the next few years in order for SoCalGas to maintain its authorized capital structure while managing its capital investment program.

PE, a wholly owned subsidiary of Sempra Energy, owns all of SoCalGas' outstanding common stock. Accordingly, dividends paid by SoCalGas to PE and dividends paid by PE to Sempra Energy are both eliminated in Sempra Energy's Consolidated Financial Statements.

Dividend Restrictions

The board of directors for each of Sempra Energy, SDG&E and SoCalGas has the discretion to determine the payment and amount of future dividends by each such entity. The CPUC's regulation of SDG&E's and SoCalGas' capital structures limits the amounts that are available for loans and dividends to Sempra Energy. At December 31, 2019, based on these regulations, Sempra Energy could have received combined loans and dividends of approximately \$885 million from SDG&E and \$742 million from SoCalGas.

We provide additional information about dividend restrictions in "Restricted Net Assets" in Note 1 of the Notes to Consolidated Financial Statements.

Book Value Per Common Share

Sempra Energy's book value per common share on the last day of each year was as follows:

- \$60.58 in 2019
- \$54.35 in 2018
- \$50.40 in 2017

The increase in 2019 was primarily due to comprehensive income exceeding dividends and issuances of common stock. In 2018, the increase was primarily due to issuances of common stock, partially offset by dividends exceeding comprehensive income.

Capitalization

Our debt to capitalization ratio, calculated as total debt as a percentage of total debt and equity, was as follows:

TOTAL CAPITALIZATION AND DEBT-TO-CAPITALIZATION RATIOS

(Dollars in millions)

	Sempra Energy		
	Consolidated	SDG&E	SoCalGas
	December 31, 2019		
Total capitalization	\$ 47,621	\$ 13,542	\$ 9,172
Debt-to-capitalization ratio	54%	48%	48%
	December 31, 2018		
Total capitalization	\$ 43,819	\$ 12,625	\$ 7,944
Debt-to-capitalization ratio	56%	52%	46%

Significant changes in 2019 that affected capitalization included the following:

- Sempra Energy Consolidated: increase in short-term debt and increase in equity from issuances of common stock and comprehensive income exceeding dividends.
- SDG&E: increase in equity from comprehensive income and common stock, partially offset by a decrease in NCI due to deconsolidation of Otay Mesa VIE.
- SoCalGas: increase in both long-term and short-term debt and from comprehensive income exceeding dividends.

COMMITMENTS

The following tables summarize undiscounted principal contractual commitments at December 31, 2019, exclusive of commitments within discontinued operations, for Sempra Energy Consolidated, SDG&E and SoCalGas. We provide additional information about commitments above and in Notes 1, 7, 9, 15 and 16 of the Notes to Consolidated Financial Statements.

UNDISCOUNTED PRINCIPAL CONTRACTUAL COMMITMENTS – SEMPR ENERGY CONSOLIDATED

(Dollars in millions)

	2020	2021 and 2022	2023 and 2024	Thereafter	Total
Long-term debt	\$ 1,501	\$ 2,599	\$ 2,780	\$ 14,367	\$ 21,247
Interest on long-term debt ⁽¹⁾	822	1,518	1,365	10,346	14,051
Operating leases	75	138	104	452	769
Finance leases	198	385	379	2,629	3,591
Purchased-power contracts – fixed payments	233	462	360	904	1,959
Purchased-power contracts – estimated variable payments	326	656	655	3,707	5,344
Natural gas contracts ⁽²⁾	193	265	121	311	890
LNG contract ⁽³⁾	265	738	761	1,842	3,606
Construction commitments	990	89	32	101	1,212
SONGS decommissioning	89	165	109	739	1,102
Other asset retirement obligations	71	143	152	10,879	11,245
Sunrise Powerlink wildfire mitigation fund	4	8	8	282	302
Pension and other postretirement benefit obligations ⁽⁴⁾	275	463	453	896	2,087
Wildfire Fund obligation	13	26	26	51	116
Environmental commitments ⁽⁵⁾	9	34	3	50	96
Other ⁽⁶⁾	80	64	37	115	296
Total	\$ 5,144	\$ 7,753	\$ 7,345	\$ 47,671	\$ 67,913

⁽¹⁾ We calculate expected interest payments using the stated interest rate for fixed-rate obligations, including floating-to-fixed interest rate swaps and cross-currency swaps. We calculate expected interest payments for variable-rate obligations based on forward rates in effect at December 31, 2019.

⁽²⁾ Includes \$11 million of estimated variable payments.

⁽³⁾ Sempra LNG has a sale and purchase agreement for the supply of LNG to the ECA LNG Regasification terminal. The commitment amount is calculated using a predetermined formula based on estimated forward prices of the index applicable from 2020 to 2029.

⁽⁴⁾ Amounts represent expected company contributions to the plans for the next 10 years.

⁽⁵⁾ Excludes environmental matters for the Leak at SoCalGas' Aliso Canyon natural gas storage facility.

⁽⁶⁾ Includes leases that have not yet commenced.

UNDISCOUNTED PRINCIPAL CONTRACTUAL COMMITMENTS – SDG&E*(Dollars in millions)*

	2020	2021 and 2022	2023 and 2024	Thereafter	Total
Long-term debt	\$ 36	\$ 404	\$ 450	\$ 4,250	\$ 5,140
Interest on long-term debt ⁽¹⁾	221	425	395	2,803	3,844
Operating leases	30	54	32	28	144
Finance leases	192	380	375	2,624	3,571
Purchased-power contracts – fixed payments	233	462	360	904	1,959
Purchased-power contracts – estimated variable payments	326	656	655	3,707	5,344
Construction commitments	20	33	2	2	57
SONGS decommissioning	89	165	109	739	1,102
Other asset retirement obligations	6	10	10	1,136	1,162
Sunrise Powerlink wildfire mitigation fund	4	8	8	282	302
Pension and other postretirement benefit obligations ⁽²⁾	54	105	97	96	352
Wildfire Fund obligation	13	26	26	51	116
Environmental commitments	3	7	2	35	47
Other ⁽³⁾	3	7	6	45	61
Total	\$ 1,230	\$ 2,742	\$ 2,527	\$ 16,702	\$ 23,201

⁽¹⁾ SDG&E calculates expected interest payments using the stated interest rate for fixed-rate obligations.⁽²⁾ Amounts represent expected SDG&E contributions to the plans for the next 10 years.⁽³⁾ Includes leases that have not yet commenced.**UNDISCOUNTED PRINCIPAL CONTRACTUAL COMMITMENTS – SOCALGAS***(Dollars in millions)*

	2020	2021 and 2022	2023 and 2024	Thereafter	Total
Long-term debt	\$ —	\$ —	\$ 500	\$ 3,309	\$ 3,809
Interest on long-term debt ⁽¹⁾	148	297	292	2,174	2,911
Natural gas contracts	124	154	36	35	349
Operating leases	22	38	25	19	104
Finance leases	6	5	4	5	20
Environmental commitments ⁽²⁾	6	27	1	14	48
Pension and other postretirement benefit obligations ⁽³⁾	155	307	310	698	1,470
Asset retirement obligations	65	133	142	9,471	9,811
Other	2	3	3	36	44
Total	\$ 528	\$ 964	\$ 1,313	\$ 15,761	\$ 18,566

⁽¹⁾ SoCalGas calculates interest payments using the stated interest rate for fixed-rate obligations.⁽²⁾ Excludes amounts related to the natural gas leak at the Aliso Canyon natural gas storage facility.⁽³⁾ Amounts represent expected SoCalGas contributions to the plans for the next 10 years.

The tables exclude contracts between consolidated affiliates, intercompany debt and employment contracts.

The tables also exclude income tax liabilities at December 31, 2019 of:

- \$93 million for Sempra Energy Consolidated
- \$12 million for SDG&E
- \$64 million for SoCalGas

These liabilities relate to uncertain tax positions and were excluded from the tables because we are unable to reasonably estimate the timing of future payments due to uncertainties in the timing of the effective settlement of tax positions. We provide additional information about unrecognized income tax benefits in Note 8 of the Notes to Consolidated Financial Statements.

We have bilateral unsecured standby letter of credit capacity with select lenders that is uncommitted and supported by reimbursement agreements. At December 31, 2019, we had approximately \$647 million in standby letters of credit outstanding under these agreements.

OFF-BALANCE SHEET ARRANGEMENTS

At December 31, 2019, Sempra LNG has provided guarantees aggregating a maximum of \$4.0 billion associated with Cameron LNG JV's debt obligations. We discuss these guarantees in Note 6 of the Notes to Consolidated Financial Statements.

SDG&E has entered into PPAs that are variable interests. Our investments in Oncor Holdings and Cameron LNG JV are variable interests. Sempra Energy's other businesses may also enter into arrangements that could include variable interests. We discuss variable interests in Note 1 of the Notes to Consolidated Financial Statements.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Management views certain accounting policies as critical because their application is the most relevant, judgmental, and/or material to our financial position and results of operations, and/or because they require the use of material judgments and estimates.

We describe our significant accounting policies in Note 1 of the Notes to Consolidated Financial Statements. We discuss choices among alternative accounting policies that are material to our financial statements and information concerning significant estimates with the audit committee of the Sempra Energy board of directors.

CONTINGENCIES

Sempra Energy, SDG&E, SoCalGas

We accrue losses for the estimated impacts of various conditions, situations or circumstances involving uncertain outcomes. For loss contingencies, we accrue the loss if an event has occurred on or before the balance sheet date and:

- information available through the date we file our financial statements indicates it is probable that a loss has been incurred, given the likelihood of uncertain future events
- the amount of the loss can be reasonably estimated

We do not accrue contingencies that might result in gains. We continuously assess contingencies for litigation claims, environmental remediation and other events.

Details of our issues in this area are discussed in Note 16 of the Notes to Consolidated Financial Statements.

REGULATORY ACCOUNTING

Sempra Energy, SDG&E, SoCalGas

As regulated entities, the California Utilities' rates, as set and monitored by regulators, are designed to recover the cost of providing service and provide the opportunity to earn a reasonable return on their investments. The California Utilities record regulatory assets, which are generally costs that would otherwise be charged to expense, if it is probable that, through the ratemaking process, the utility will recover that asset from customers in future rates. Similarly, regulatory liabilities are recorded for amounts recovered in rates in advance or in excess of costs incurred. The California Utilities assess probabilities of future rate recovery associated with regulatory account balances at the end of each reporting period and whenever new and/or unusual events occur, such as:

- changes in the regulatory and political environment or the utility's competitive position
- issuance of a regulatory commission order
- passage of new legislation

To the extent that circumstances associated with regulatory balances change, the regulatory balances are evaluated and adjusted if appropriate.

Adverse legislative or regulatory actions could materially impact the amounts of our regulatory assets and liabilities and could materially adversely impact our financial statements. Details of the California Utilities' regulatory assets and liabilities and additional factors that management considers when assessing probabilities associated with regulatory balances are discussed in Notes 1, 4, 15 and 16 of the Notes to Consolidated Financial Statements.

INCOME TAXES

Sempra Energy, SDG&E, SoCalGas

Our income tax expense and related balance sheet amounts involve significant management judgments and estimates. Amounts of deferred income tax assets and liabilities, as well as current and noncurrent accruals, involve judgments and estimates of the timing and probability of recognition of income and deductions by taxing authorities. When we evaluate the anticipated resolution of income tax issues, we consider:

- past resolutions of the same or similar issue
- the status of any income tax examination in progress
- positions taken by taxing authorities with other taxpayers with similar issues

The likelihood of deferred income tax recovery is based on analyses of the deferred income tax assets and our expectation of future taxable income, based on our strategic planning.

Actual income taxes could vary from estimated amounts because of:

- future impacts of various items, including changes in tax laws, regulations, interpretations and rulings
- our financial condition in future periods
- the resolution of various income tax issues between us and taxing and regulatory authorities

For an uncertain position to qualify for benefit recognition, the position must have at least a more-likely-than-not chance of being sustained (based on the position's technical merits) upon challenge by the respective authorities. The term more-likely-than-not means a likelihood of more than 50%. If we do not have a more-likely-than-not position with respect to a tax position, then we do not recognize any of the potential tax benefit associated with the position. A tax position that meets the more-likely-than-not recognition is measured as the largest amount of tax benefit that is greater than 50% likely of being realized upon the effective resolution of the tax position.

Unrecognized tax benefits involve management's judgment regarding the likelihood of the benefit being sustained. The final resolution of uncertain tax positions could result in adjustments to recorded amounts and may affect our results of operations, financial position and cash flows.

We discuss details of our issues in this area and additional information related to accounting for income taxes, including uncertainty in income taxes, in Note 8 of the Notes to Consolidated Financial Statements.

DERIVATIVES AND HEDGE ACCOUNTING

Sempra Energy, SDG&E, SoCalGas

We record derivative instruments for which we do not apply a scope exception at fair value on the balance sheet. Depending on the purpose for the contract and the applicability of hedge or regulatory accounting, the changes in fair value of derivatives may be recorded in earnings, on the balance sheet, or in OCI. We also use the normal purchase or sale exception for certain derivative contracts. Whenever possible, we use exchange quoted prices or other third-party pricing to estimate fair values; if no such data is available, we use internally developed models and other techniques. The assumed collectability of derivative assets considers events specific to a given counterparty, the counterparty's credit worthiness, and the tenor of the transaction.

The application of hedge accounting and normal purchase or sale accounting for certain derivatives is determined on a contract-by-contract basis. Significant changes in assumptions in our cash flow hedges, such as the amount and/or timing of forecasted transactions, could cause unrealized gains or losses (mark-to-market) to be reclassified out of AOCI to earnings, which may materially impact our results of operations. Additionally, changes in assumed physical delivery on contracts for which we elected normal purchase or sale accounting may result in "tainting" of the election, which may (1) preclude us from making this election in future transactions and (2) impact Sempra Energy's results of operations. Any resulting impact on the California Utilities' results of operations would not be significant because regulatory accounting principles generally apply to their contracts. We provide details of our derivative instruments and our fair value approaches in Notes 11 and 12, respectively, of the Notes to Consolidated Financial Statements.

PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

Sempra Energy, SDG&E, SoCalGas

To measure our pension and other postretirement obligations, costs and liabilities, we rely on several assumptions. We consider current market conditions, including interest rates, in making these assumptions. We review these assumptions annually and update when appropriate.

The critical assumptions used to develop the required estimates include the following key factors:

- discount rates
- expected return on plan assets
- health care cost trend rates
- mortality rates
- rate of compensation increases
- termination and retirement rates
- utilization of postretirement welfare benefits
- payout elections (lump sum or annuity)
- lump sum interest rates

The actuarial assumptions we use may differ materially from actual results due to:

- return on plan assets
- changing market and economic conditions
- higher or lower withdrawal rates
- longer or shorter participant life spans
- more or fewer lump sum versus annuity payout elections made by plan participants
- higher or lower retirement rates

These differences, other than those related to the California Utilities' plans, where rate recovery offsets the effects of the assumptions on earnings, may result in a significant impact to the amount of pension and other postretirement benefit expense we record. For plans other than those at the California Utilities, the approximate annual effect on earnings of a 100 bps increase or decrease in the assumed discount rate would be less than \$2 million and the effect of a 100 bps increase or decrease in the assumed rate of return on plan assets would be less than \$2 million. We provide details of our pension and other postretirement benefit plans in Note 9 of the Notes to Consolidated Financial Statements.

ASSET RETIREMENT OBLIGATIONS

Sempra Energy, SDG&E

SDG&E's legal AROs related to the decommissioning of SONGS are estimated based on a site-specific study performed no less than every three years. The estimate of the obligations includes:

- estimated decommissioning costs, including labor, equipment, material and other disposal costs
- inflation adjustment applied to estimated cash flows
- discount rate based on a credit-adjusted risk-free rate
- actual decommissioning costs, progress to date and expected duration of decommissioning activities

Changes in the estimated decommissioning costs, or in the assumptions and judgments made by management underlying these estimates, could cause revisions to the estimated total cost associated with retiring the assets. SDG&E's nuclear decommissioning expenses are subject to rate recovery and, therefore, rate-making accounting treatment is applied to SDG&E's nuclear decommissioning activities. SDG&E recognizes a regulatory asset, or liability, to the extent that its SONGS ARO exceeds, or is less than, the amount collected from customers and the amount earned in SDG&E's NDT.

We provide additional detail in Note 15 of the Notes to Consolidated Financial Statements.

IMPAIRMENT TESTING OF LONG-LIVED ASSETS

Sempra Energy

Whenever events or changes in circumstances indicate that an asset's carrying amount may not be recoverable, we consider if the estimated future undiscounted cash flows are less than the carrying amount of the asset. If so, we estimate the fair value of the asset to determine the extent to which carrying value exceeds fair value. For such an estimate, we may consider data from multiple valuation methods, including data from market participants. We exercise judgment to estimate the future cash flows and the useful life of a long-lived asset and to determine our intent to use the asset. Our intent to use or dispose of a long-lived asset is subject to re-evaluation and can change over time.

If an impairment test is required, the fair value of a long-lived asset can vary if differing estimates and assumptions are used in the valuation techniques applied as indicated by changing market or other conditions. We discuss impairment of long-lived assets in Note 1 of the Notes to Consolidated Financial Statements.

IMPAIRMENT TESTING OF GOODWILL

Sempra Energy

On an annual basis or whenever events or changes in circumstances necessitate an evaluation, we consider whether goodwill may be impaired. For our annual goodwill impairment testing, we have the option to first make a qualitative assessment of whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount before applying the two-step, quantitative goodwill impairment test. If we elect to perform the qualitative assessment, we evaluate relevant events and circumstances, including but not limited to, macroeconomic conditions, industry and market considerations, cost factors, changes in key personnel and the overall financial performance of the reporting unit. If, after assessing these qualitative factors, we determine that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then we perform the two-step goodwill impairment test. Under the two-step goodwill impairment test, we first determine if the carrying value of a reporting unit exceeds its fair value and if so, then measure the amount of goodwill impairment, if any. When determining if goodwill is impaired, the fair value of the reporting unit and goodwill can vary if differing estimates and assumptions are used in the valuation techniques applied as indicated by changing market or other conditions. As a result, recognizing a goodwill impairment may or may not be required. When we perform the two-step, quantitative goodwill impairment test, we exercise judgment to develop estimates of the fair value of the reporting unit and compare that to its carrying value. Our fair value estimates are developed from the perspective of a knowledgeable market participant. We consider observable transactions in the marketplace for similar investments, if available, as well as an income-based approach such as a discounted cash flow analysis. A discounted cash flow analysis may be based directly on anticipated future revenues and expenses and may be performed based on free cash flows generated within the reporting unit. Critical assumptions that affect our estimates of fair value may include:

- consideration of market transactions
- future cash flows
- the appropriate risk-adjusted discount rate
- country risk
- entity risk

In 2019, we performed a quantitative goodwill impairment test and determined that the estimated fair values of our reporting units in Mexico to which goodwill was allocated was substantially above their carrying values as of October 1, 2019, our goodwill impairment testing date. We discuss goodwill in Note 1 of the Notes to Consolidated Financial Statements.

CARRYING VALUE OF EQUITY METHOD INVESTMENTS

Sempra Energy

We generally account for investments under the equity method when we have significant influence over, but do not have control of, the investee.

We consider whether the fair value of each equity investment as a whole, not the underlying net assets, has declined and whether that decline is other than temporary. To help evaluate whether a decline in fair value below carrying value has occurred and if the decline is other than temporary, we may develop fair value estimates for the investment. Our fair value estimates are developed

from the perspective of a knowledgeable market participant. In the absence of observable transactions in the marketplace for similar investments, we consider an income-based approach such as a discounted cash flow analysis or, with less weighting, the replacement cost of the underlying net assets. A discounted cash flow analysis may be based directly on anticipated future distributions from the investment, or may be performed based on free cash flows generated within the entity and adjusted for our ownership share total. When calculating estimates of fair value, we also consider whether we intend to hold or sell the investment. For certain investments, critical assumptions may include:

- equity sale offer price for the investment
- transportation rates for natural gas
- the appropriate risk-adjusted discount rate
- the availability and costs of natural gas and LNG
- competing fuels and electricity
- estimated future power generation and associated tax credits
- renewable power price expectations

In addition, for our indirect investment in Oncor, critical assumptions may also include the effects of ratemaking, such as the results of regulator decisions on rates and recovery of regulated investments and costs. The risk assumptions applied by other market participants to value the investments could vary significantly or the appropriate approaches could be weighted differently. These differences could impact whether or not the fair value of the investment is less than its carrying value, and if so, whether that condition is other than temporary. This could result in an impairment charge and, in cases where an impairment charge has been recorded, additional loss or gain upon sale in the case of a sale transaction.

We provide additional details in Notes 6 and 12 of the Notes to Consolidated Financial Statements.

NEW ACCOUNTING STANDARDS

We discuss the relevant pronouncements that have recently become effective and have had or may have a significant effect on our financial statements in Note 2 of the Notes to Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of erosion of our cash flows, earnings, asset values and equity due to adverse changes in market prices, interest rates and foreign currency rates.

RISK POLICIES

Sempra Energy has policies governing its market risk management and trading activities. Sempra Energy and the California Utilities maintain separate risk management committees, organizations and processes for the California Utilities and for all non-CPUC regulated affiliates to provide oversight of these activities. The committees consist of senior officers who establish policy, oversee energy risk management activities, and monitor the results of trading and other activities to ensure compliance with our stated energy risk management and trading policies. These activities include, but are not limited to, monitoring of market positions that create credit, liquidity and market risk. The respective oversight organizations and committees are independent from the energy procurement departments.

Along with other tools, we use VaR and liquidity metrics to measure our exposure to market risk associated with the commodity portfolios. VaR is an estimate of the potential loss on a position or portfolio of positions over a specified holding period, based on normal market conditions and within a given statistical confidence interval. We use a variance-covariance VaR model at a 95% confidence level. A liquidity metric is intended to monitor the amount of financial resources needed for meeting potential margin calls as forward market prices move. VaR and liquidity risk metrics are calculated independently by the respective risk management oversight organizations.

The California Utilities use power and natural gas derivatives to manage natural gas and electric price risk associated with servicing load requirements. The use of power and natural gas derivatives is subject to certain limitations imposed by company policy and is in compliance with risk management and trading activity plans that have been filed with and approved by the CPUC. We discuss revenue recognition in Note 3 and the additional market-risk information regarding derivative instruments in Note 11 of the Notes to Consolidated Financial Statements.

We have exposure to changes in commodity prices, interest rates and foreign currency rates. The following discussion of these primary market-risk exposures as of December 31, 2019 includes a discussion of how these exposures are managed.

COMMODITY PRICE RISK

Market risk related to physical commodities is created by volatility in the prices and basis of certain commodities. Our various subsidiaries are exposed, in varying degrees, to price risk, primarily to prices in the natural gas and electricity markets. Our policy is to manage this risk within a framework that considers the unique markets and operating and regulatory environments of each subsidiary.

Sempra Mexico and Sempra LNG are generally exposed to commodity price risk indirectly through their LNG, natural gas pipelines and storage, and power-generating assets. These segments may utilize commodity transactions in the course of optimizing these assets. These transactions are typically priced based on market indices, but may also include fixed price purchases and sales of commodities. Any residual exposure is monitored as described above. A hypothetical 10% unfavorable change in commodity prices would not have resulted in a material change in the fair value of our commodity-based derivatives for these segments at December 31, 2019 and 2018. The impact of a change in energy commodity prices on our commodity-based derivative instruments at a point in time is not necessarily representative of the results that will be realized when the contracts are ultimately settled and does not typically include the generally offsetting impact of our underlying asset positions.

The California Utilities' market-risk exposure is limited due to CPUC-authorized rate recovery of the costs of commodity purchases, interstate and intrastate transportation, and storage activity. However, SoCalGas may, at times, be exposed to market risk as a result of incentive mechanisms that reward or penalize the utility for commodity costs below or above certain benchmarks for SoCalGas' GCIM. If commodity prices were to rise too rapidly, it is likely that volumes would decline. This decline would increase the per-unit fixed costs, which could lead to further volume declines. The California Utilities manage their risk within the parameters of their market risk management framework. As of and for the year ended December 31, 2019, the total VaR of the California Utilities' natural gas and electric positions was not material, and the procurement activities were in compliance with the procurement plans filed with and approved by the CPUC.

INTEREST RATE RISK

We are exposed to fluctuations in interest rates primarily as a result of our having issued short- and long-term debt. Subject to regulatory constraints, we periodically enter into interest rate swap agreements to moderate our exposure to interest rate changes and to lower our overall cost of borrowing.

The table below shows the nominal amount of debt:

	December 31, 2019			December 31, 2018		
	Sempra Energy Consolidated	SDG&E	SoCalGas	Sempra Energy Consolidated	SDG&E	SoCalGas
NOMINAL AMOUNT OF DEBT⁽¹⁾						
<i>(Dollars in millions)</i>						
Short-term:						
California Utilities	\$ 710	\$ 80	\$ 630	\$ 547	\$ 291	\$ 256
Other	2,798	—	—	1,477	—	—
Long-term:						
California Utilities fixed-rate	\$ 8,949	\$ 5,140	\$ 3,809	\$ 8,377	\$ 4,918	\$ 3,459
California Utilities variable-rate	—	—	—	78	78	—
Other fixed-rate	11,561	—	—	10,804	—	—
Other variable-rate	746	—	—	2,091	—	—

⁽¹⁾ After the effects of interest rate swaps. Before the effects of acquisition-related fair value adjustments and reductions for unamortized discount and debt issuance costs, and excluding finance lease obligations and build-to-suit arrangement.

Interest rate risk sensitivity analysis measures interest rate risk by calculating the estimated changes in earnings that would result from a hypothetical change in market interest rates. Earnings are affected by changes in interest rates on short-term debt and variable long-term debt. If weighted-average interest rates on short-term debt outstanding at December 31, 2019 increased or decreased by 10%, the change in earnings over the 12-month period ended December 31, 2020 would be approximately \$8 million. If interest rates increased or decreased by 10% on all variable-rate long-term debt at December 31, 2019, after

considering the effects of interest rate swaps, the change in earnings over the 12-month period ended December 31, 2020 would be approximately \$1 million.

We provide further information about debt and interest rate swap transactions in Notes 7 and 11, respectively, of the Notes to Consolidated Financial Statements.

We also are subject to the effect of interest rate fluctuations on the assets of our pension plans, other postretirement benefit plans, and SDG&E's NDT. However, we expect the effects of these fluctuations, as they relate to the California Utilities, to be recovered in future rates.

FOREIGN CURRENCY AND INFLATION RATE RISK

We discuss the impact of foreign currency and inflation rates in "Item 7. MD&A – Impact of Foreign Currency and Inflation Rates on Results of Operations."

The hypothetical effect for every 10% appreciation in the U.S. dollar against the Mexican peso, in which we have operations and investments, are as follows:

HYPOTHETICAL EFFECTS FROM 10% STRENGTHENING OF U.S. DOLLAR

(Dollars in millions)

	Hypothetical effects
Translation of 2019 earnings to U.S. dollars ⁽¹⁾	\$ (3)
Transactional exposure, before the effects of foreign currency derivatives ⁽²⁾	102
Translation of net assets of foreign subsidiaries and investment in foreign entities ⁽³⁾	(17)

⁽¹⁾ Amount represents the impact to earnings for a change in the average exchange rate throughout the reporting period.

⁽²⁾ Amount primarily represents the effects of currency exchange rate movement from December 31, 2019 on monetary assets and liabilities and translation of non-U.S. deferred income tax balances at our Mexican subsidiaries.

⁽³⁾ Amount represents the effects of currency exchange rate movement from December 31, 2019 recorded to OCI at the end of each reporting period.

Monetary assets and liabilities at our Mexican subsidiaries that are denominated in U.S. dollars may fluctuate significantly throughout the year. These monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. Based on a net monetary liability position of \$4.0 billion, including those related to our investments in JVs, at December 31, 2019, the hypothetical effect of a 10% increase in the Mexican inflation rate is approximately \$77 million lower earnings as a result of higher income tax expense for our consolidated subsidiaries, as well as lower equity earnings for our JVs.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements are listed on the Index to Consolidated Financial Statements set forth on page F-1 of this annual report on Form 10-K.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Sempra Energy, SDG&E, SoCalGas

Sempra Energy, SDG&E and SoCalGas have designed and maintain disclosure controls and procedures to ensure that information required to be disclosed in their respective reports is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and is accumulated and communicated to the management of each company, including each respective principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. In designing and evaluating these controls and procedures, the management of each company recognizes that any system of controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives; therefore, the management of each company applies judgment in evaluating the cost-benefit relationship of other possible controls and procedures.

Under the supervision and with the participation of management, including the principal executive officers and principal financial officers of Sempra Energy, SDG&E and SoCalGas, each company evaluated the effectiveness of the design and operation of its disclosure controls and procedures as of December 31, 2019, the end of the period covered by this report. Based on these evaluations, the principal executive officers and principal financial officers of Sempra Energy, SDG&E and SoCalGas concluded that their respective company's disclosure controls and procedures were effective at the reasonable assurance level.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Sempra Energy, SDG&E, SoCalGas

The respective management of each company is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f).

Under the supervision and with the participation of the management of each company, including each company's principal executive officer and principal financial officer, the effectiveness of each company's internal control over financial reporting was evaluated based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the evaluations, each company concluded that its internal control over financial reporting was effective as of December 31, 2019. Deloitte & Touche LLP audited the effectiveness of each company's internal control over financial reporting as of December 31, 2019, as stated in their reports, which are included in this annual report on Form 10-K.

There have been no changes in the companies' internal control over financial reporting during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the companies' internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Sempra Energy:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Sempra Energy and subsidiaries (“Sempra Energy”) as of December 31, 2019, 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, Sempra Energy maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, 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 and for the year ended December 31, 2019, of Sempra Energy and our report dated February 27, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

Sempra Energy’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 Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on Sempra Energy’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 Sempra Energy 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

San Diego, California
February 27, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholder and Board of Directors of San Diego Gas & Electric Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of San Diego Gas & Electric Company (“SDG&E”) as of December 31, 2019, 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, SDG&E maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, 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 and for the year ended December 31, 2019, of SDG&E and our report dated February 27, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

SDG&E’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 Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on SDG&E’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 SDG&E 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

San Diego, California
February 27, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Southern California Gas Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Southern California Gas Company (“SoCalGas”) as of December 31, 2019, 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, SoCalGas maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, 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 financial statements as of and for the year ended December 31, 2019, of SoCalGas and our report dated February 27, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

SoCalGas’ 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 Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the SoCalGas’ 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 SoCalGas 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

San Diego, California
February 27, 2020

ITEM 9B. OTHER INFORMATION

None.

PART III.

Because SDG&E meets the conditions of General Instructions I(1)(a) and (b) of Form 10-K and is therefore filing this report with a reduced disclosure format as permitted by General Instruction I(2), the information required by Items 10, 11, 12 and 13 below is not required for SDG&E. We have, however, provided the information required by Item 10 with respect to SDG&E's executive officers in "Item 1. Business – Other Matters – Information About Our Executive Officers."

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We provide the information required by Item 10 with respect to executive officers for Sempra Energy and SoCalGas in "Item 1. Business – Other Matters – Information About Our Executive Officers." For Sempra Energy, all other information required by Item 10 is incorporated by reference from "Corporate Governance" and "Share Ownership" in the Proxy Statement to be filed for its May 2020 annual meeting of shareholders. For SoCalGas, all other information required by Item 10 is incorporated by reference from its Information Statement to be filed for its May 2020 annual meeting of shareholders. In all cases, only the specific information that is expressly required by this item is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference from "Corporate Governance" and "Executive Compensation," including "Compensation Discussion and Analysis," "Compensation Committee Report" and "Compensation Tables" in the Proxy Statement to be filed for the May 2020 annual meeting of shareholders for Sempra Energy and from the Information Statement to be filed for the May 2020 annual meeting of shareholders for SoCalGas. In all cases, only the specific information that is expressly required by this item is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Sempra Energy has LTIPs that permit the grant of a wide variety of equity and equity-based incentive awards to directors, officers and key employees. At December 31, 2019, outstanding awards consisted of stock options and RSUs held by 429 employees.

The following table sets forth information regarding our equity compensation plan at December 31, 2019.

EQUITY COMPENSATION PLANS

Equity compensation plan approved by shareholders	Number of shares to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾	Weighted-average exercise price of outstanding options, warrants and rights ⁽²⁾	Number of additional shares remaining available for future issuance ⁽³⁾
2013 LTIP	1,712,697	\$ 105.86	—
2019 LTIP	37,648	\$ —	7,662,352

⁽¹⁾ The 2013 LTIP consists of 247,577 options to purchase shares of our common stock, all of which were granted at an exercise price equal to 100% of the grant date fair market value of the shares subject to the option, 1,086,981 performance-based RSUs and 378,139 service-based RSUs. Each performance-based RSU represents the right to receive from zero to 2.0 shares of our common stock if applicable performance conditions are satisfied. No new awards may be granted under the 2013 LTIP. The 2019 LTIP consists of 37,648 service-based RSUs.

⁽²⁾ Represents only the weighted-average exercise price of the 247,577 outstanding options to purchase shares of our common stock under the 2013 LTIP. No options have been issued under the 2019 LTIP.

⁽³⁾ The number of shares available for future issuance is increased by the number of shares to which the participant would otherwise be entitled that are withheld or surrendered to satisfy the exercise price or to satisfy tax withholding obligations relating to any plan awards, and is also increased by the number of shares subject to awards that expire or are forfeited, canceled or otherwise terminated without the issuance of shares. No new awards may be granted under the 2013 LTIP or other previous shareholder-approved LTIPs.

We provide additional discussion of share-based compensation in Note 10 of the Notes to Consolidated Financial Statements.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The security ownership information required by Item 12 is incorporated by reference from “Share Ownership” in the Proxy Statement to be filed for the May 2020 annual meeting of shareholders for Sempra Energy and in the Information Statement to be filed for the May 2020 annual meeting of shareholders for SoCalGas. In all cases, only the specific information that is expressly required by this item is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference from “Corporate Governance” in the Proxy Statement to be filed for the May 2020 annual meeting of shareholders for Sempra Energy and from the Information Statement to be filed for the May 2020 annual meeting of shareholders for SoCalGas. In all cases, only the specific information that is expressly required by this item is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accountant fees and services is presented below for Sempra Energy, SDG&E and SoCalGas. The following table shows the fees paid to Deloitte & Touche LLP, the independent registered public accounting firm for Sempra Energy, SDG&E and SoCalGas, for services provided for 2019 and 2018.

PRINCIPAL ACCOUNTANT FEES

(Dollars in thousands)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	Fees	Percent of total	Fees	Percent of total	Fees	Percent of total
2019:						
Audit fees:						
Consolidated financial statements, internal controls audits and subsidiary audits	\$ 10,568		\$ 2,804		\$ 2,789	
Regulatory filings and related services	466		45		45	
Total audit fees	11,034	87%	2,849	89%	2,834	91%
Audit-related fees:						
Employee benefit plan audits	517		162		286	
Other audit-related services	883		99		10	
Total audit-related fees	1,400	11	261	8	296	9
Tax fees	74	1	73	3	—	—
All other fees	74	1	15	—	—	—
Total fees	\$ 12,582	100%	\$ 3,198	100%	\$ 3,130	100%
2018:						
Audit fees:						
Consolidated financial statements, internal controls audits and subsidiary audits	\$ 10,842		\$ 2,413		\$ 2,782	
Regulatory filings and related services	598		80		101	
Total audit fees	11,440	89%	2,493	89%	2,883	92%
Audit-related fees:						
Employee benefit plan audits	460		143		257	
Other audit-related services	900		95		8	
Total audit-related fees	1,360	10	238	8	265	8
Tax fees	97	1	73	3	—	—
All other fees	20	—	2	—	1	—
Total fees	\$ 12,917	100%	\$ 2,806	100%	\$ 3,149	100%

The Audit Committee of Sempra Energy's board of directors is directly responsible for the appointment, compensation, retention and oversight, including the oversight of the audit fee negotiations, of the independent registered public accounting firm for Sempra Energy and its subsidiaries, including SDG&E and SoCalGas. As a matter of good corporate governance, each of the Sempra Energy, SDG&E and SoCalGas boards of directors reviewed the performance of Deloitte & Touche LLP and appointed them as the independent registered public accounting firm for each of Sempra Energy, SDG&E and SoCalGas, respectively. Sempra Energy's board of directors has determined that each member of its Audit Committee is an independent director and is financially literate, and that Mr. Taylor, the chair of the committee, is an audit committee financial expert as defined by the rules of the SEC.

Except where pre-approval is not required by SEC rules, Sempra Energy's Audit Committee pre-approves all audit, audit-related and permissible non-audit services provided by Deloitte & Touche LLP for Sempra Energy and its subsidiaries, including all services provided by Deloitte & Touche LLP for Sempra Energy, SDG&E and SoCalGas in 2019 and 2018. The committee's pre-approval policies and procedures provide for the general pre-approval of specific types of services and give detailed guidance to management as to the services that are eligible for general pre-approval. They require specific pre-approval of all other permitted services. For both types of pre-approval, the committee considers whether the services to be provided are consistent with maintaining the firm's independence. The policies and procedures also delegate authority to the chair of the committee to address any requests for pre-approval of services between committee meetings, with any pre-approval decisions to be reported to the committee at its next scheduled meeting.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this report:

1. FINANCIAL STATEMENTS

Our consolidated financial statements are listed on the Index to Consolidated Financial Statements set forth on page F-1 of this annual report on Form 10-K.

2. FINANCIAL STATEMENT SCHEDULES

Schedule I is listed on the Index to Condensed Financial Information of Parent as set forth on page S-1 of this annual report on Form 10-K.

Any other schedule for which provision is made in Regulation S-X is not required under the instructions contained therein, is inapplicable or the information is included in the Consolidated Financial Statements and Notes thereto in this annual report on Form 10-K.

3. EXHIBITS

EXHIBIT INDEX

The exhibits listed below relate to each registrant as indicated. Unless otherwise indicated, the exhibits that are incorporated by reference herein were filed under File Number 1-14201 (Sempra Energy), File Number 1-40 (Pacific Lighting Corporation), File Number 1-03779 (San Diego Gas & Electric Company) and/or File Number 1-01402 (Southern California Gas Company).

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form or Registration Statement No.	Exhibit or Appendix	Filing Date

EXHIBIT 2 – PLAN OF ACQUISITION, REORGANIZATION, ARRANGEMENT, LIQUIDATION OR SUCCESSION

Sempra Energy

2.1	Agreement and Plan of Merger, dated as of August 21, 2017, by and among Sempra Energy, Power Play Merger Sub I, Inc. (now known as Sempra Texas Merger Sub I, Inc.), Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp.		8-K	2.1	08/25/17
2.2	First Amended Joint Plan of Reorganization of Energy Future Holdings Corp., et al., Pursuant to Chapter 11 of the Bankruptcy Code.		8-K	2.2	08/25/17
2.3	Waiver Agreement, dated as of October 3, 2017, by and among Sempra Energy, Sempra Texas Merger Sub I, Inc., Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp.		8-K	2.1	10/06/17
2.4	Amendment No. 2 to the Agreement and Plan of Merger, dated as of February 15, 2018, by and among Sempra Energy, Sempra Texas Merger Sub I, Inc., Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp.		10-K	2.1.3	02/27/18
2.5	Purchase and Sale Agreement, dated as of September 20, 2018, by and between Sempra Solar Portfolio Holdings, LLC and CED Southwest Holdings, Inc.		8-K	2	09/20/18
2.6	Purchase and Sale Agreement, dated as of September 27, 2019, by and between Sempra International Holdings N.V. and China Yangtze Power International (Hongkong) Co., Limited.		8-K	2.1	09/30/19
2.7	Letter of Undertaking, dated as of September 27, 2019, by and between Sempra Energy International Holdings N.V., China Three Gorges Corporation and Ching Three Gorges Construction Management Co., Ltd.		8-K	2.2	09/30/19
2.8	Purchase and Sale Agreement, dated as of October 12, 2019, by and between Sempra Energy International Holdings N.V. and State Grid International Development Limited.		8-K	2.1	10/15/19

EXHIBIT 3 – BYLAWS AND ARTICLES OF INCORPORATION

Sempra Energy

3.1	Amended and Restated Articles of Incorporation of Sempra Energy effective May 23, 2008.	X			
3.2	Bylaws of Sempra Energy (as amended through December 15, 2015).		8-K	3.1	12/17/15
3.3	Certificate of Determination of the 6% Mandatory Convertible Preferred Stock, Series A, of Sempra Energy (including the form of certificate representing the 6% Mandatory Convertible Preferred Stock, Series A), filed with the Secretary of State of the State of California and effective January 5, 2018.		8-K	3.1	01/09/18
3.4	Certificate of Determination of the 6.75% Mandatory Convertible Preferred Stock, Series B, of Sempra Energy (including the form of certificate representing the 6.75% Mandatory Convertible Preferred Stock, Series B), filed with the Secretary of State of the State of California and effective July 11, 2018.		8-K	3.1	07/13/18

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form or Registration Statement No.	Exhibit or Appendix	Filing Date
<i>San Diego Gas & Electric Company</i>					
3.5	Amended and Restated Articles of Incorporation of San Diego Gas & Electric Company effective August 15, 2014.		10-K	3.4	02/26/15
3.6	Bylaws of San Diego Gas & Electric (as amended through October 26, 2016).		10-Q	3.1	11/02/16
<i>Southern California Gas Company</i>					
3.7	Restated Articles of Incorporation of Southern California Gas Company effective October 7, 1996.		10-K	3.01	03/28/97
3.8	Bylaws of Southern California Gas Company (as amended through January 30, 2017).		8-K	3.1	01/31/17
EXHIBIT 4 – INSTRUMENTS DEFINING THE RIGHTS OF SECURITY HOLDERS, INCLUDING INDENTURES					
Certain instruments defining the rights of holders of long-term debt instruments are not required to be filed or incorporated by reference herein pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K. Each registrant agrees to furnish a copy of such instruments to the SEC upon request.					
<i>Sempra Energy</i>					
4.1	Description of rights of Sempra Energy Common Stock (Amended and Restated Articles of Incorporation of Sempra Energy effective May 23, 2008) (included as Exhibit 3.1 above).	X			
4.2	Description of Securities.	X			
4.3	Indenture dated as of February 23, 2000, between Sempra Energy and U.S. Bank Trust National Association, as Trustee.		S-3ASR 333-153425	4.1	09/11/08
4.4	Certificate of Determination of the 6% Mandatory Convertible Preferred Stock, Series A, of Sempra Energy (including the form of certificate representing the 6% Mandatory Convertible Preferred Stock, Series A), filed with the Secretary of State of the State of California and effective January 5, 2018 (included as Exhibit 3.3 above).		8-K	3.1	01/09/18
4.5	Certificate of Determination of the 6.75% Mandatory Convertible Preferred Stock, Series B, of Sempra Energy (including the form of certificate representing the 6.75% Mandatory Convertible Preferred Stock, Series B), filed with the Secretary of State of the State of California and effective July 11, 2018 (included as Exhibit 3.4 above).		8-K	3.1	07/13/18
4.6	Subordinated Indenture, date as of June 26, 2019, between Sempra Energy and U.S. Bank National Association, as trustee.		8-K	4.2	06/26/19
4.7	Officer's Certificate of Sempra Energy, including the form of 5.750% Junior Subordinated Notes due 2079.		8-K	4.1	06/26/19
<i>Southern California Gas Company</i>					
4.8	Description of preferences of Preferred Stock, Preference Stock and Series Preferred Stock (Southern California Gas Company Restated Articles of Incorporation) (included as Exhibit 3.7 above).		10-K	3.01	03/28/97
4.9	Description of Securities.	X			
<i>Sempra Energy / San Diego Gas & Electric Company</i>					
4.10	Mortgage and Deed of Trust dated July 1, 1940.		2-4769	B-3	(1)
4.11	Second Supplemental Indenture dated as of March 1, 1948.		2-7418	B-5B	(1)
4.12	Ninth Supplemental Indenture dated as of August 1, 1968.		333-52150	4.5	(1)
4.13	Tenth Supplemental Indenture dated as of December 1, 1968.		2-36042	2-K	(1)
4.14	Sixteenth Supplemental Indenture dated August 28, 1975.		33-34017	4.2	(1)

⁽¹⁾ Exhibit is not available on the SEC's website as it was filed in paper and predates the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) database.

Exhibit Number	Exhibit Description	Incorporated by Reference		
		Filed Herewith	Form or Registration Statement No.	Exhibit or Appendix Filing Date
<i>Sempra Energy / Southern California Gas Company</i>				
4.15	First Mortgage Indenture of Southern California Gas Company to American Trust Company dated October 1, 1940.		2-4504	B-4 (1)
4.16	Supplemental Indenture of Southern California Gas Company to American Trust Company dated as of August 1, 1955.		2-11997	4.07 (1)
4.17	Supplemental Indenture of Southern California Gas Company to American Trust Company dated as of December 1, 1956.		10-K	4.09 02/23/07
4.18	Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank dated as of June 1, 1965.		10-K	4.10 02/23/07
4.19	Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of August 1, 1972.		2-59832	2.19 (1)
4.20	Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of May 1, 1976.		2-56034	2.20 (1)
4.21	Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of September 15, 1981.		333-70654	4.24 (1)

EXHIBIT 10 – MATERIAL CONTRACTS

Sempra Energy

10.1	Cooperation Agreement, dated as of September 18, 2018, by and between Elliott Associates, L.P., Elliott International, L.P., Bluescape Resources Company LLC, Cove Key Management LP and Sempra Energy.		8-K	10.1 09/18/18
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Sempra Energy / San Diego Gas & Electric Company / Southern California Gas Company

10.2	Form of Continental Forge and California Class Action Price Reporting Settlement Agreement dated as of January 4, 2006.		8-K	99.1 01/05/06
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Sempra Energy / San Diego Gas & Electric Company

10.3	Amended and Restated Operating Order between San Diego Gas & Electric Company and the California Department of Water Resources effective March 10, 2011.		10-Q	10.4 05/09/11
10.4	Amended and Restated Servicing Order between San Diego Gas & Electric Company and the California Department of Water Resources effective March 10, 2011.		10-Q	10.5 05/09/11

Management Contract or Compensatory Plan, Contract or Arrangement

Sempra Energy / San Diego Gas & Electric Company / Southern California Gas Company

10.5	Form of Sempra Energy 2019 Long-Term Incentive Plan 2020 Nonqualified Stock Option Award Agreement.	X		
10.6	Form of Sempra Energy 2019 Long-Term Incentive Plan 2020 Time-Based Restricted Stock Unit Award - Three Year Ratable Vest.	X		
10.7	Form of Sempra Energy 2019 Long-Term Incentive Plan 2020 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure.	X		
10.8	Form of Sempra Energy 2019 Long-Term Incentive Plan 2020 Performance-Based Restricted Stock Unit Award - Relative to Shareholder Return Performance Measure - S&P 500 Index.	X		
10.9	Form of Sempra Energy 2019 Long-Term Incentive Plan 2020 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Utilities Index.	X		

⁽¹⁾ Exhibit is not available on the SEC's website as it was filed in paper and predates EDGAR.

Exhibit Number	Exhibit Description	Incorporated by Reference		
		Filed Herewith	Form or Registration Statement No.	Exhibit or Appendix Filing Date
10.10	Sempra Energy 2019 Long-Term Incentive Plan.		DEF 14A	E 03/22/19
10.11	Form of Sempra Energy 2019 Long-Term Incentive Plan 2019 Time-Based Restricted Stock Unit Award - Five Year Vest.		10-Q	10.2 08/02/19
10.12	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Time-Based Restricted Stock Unit Award - One Year Vest.		10-Q	10.5 08/02/19
10.13	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Nonqualified Stock Option Award Agreement.		10-Q	10.1 05/07/19
10.14	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure.		10-Q	10.2 05/07/19
10.15	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Index.		10-Q	10.3 05/07/19
10.16	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Utilities Index.		10-Q	10.4 05/07/19
10.17	Form of Sempra Energy 2013 Long-Term Incentive Plan 2019 Time-Based Restricted Stock Unit Award - Ratable vesting.		10-Q	10.5 05/07/19
10.18	Form of Indemnification Agreement with Directors and Executive Officers (executed after January 2011).		10-Q	10.1 05/04/16
10.19	Form of Sempra Energy Shared Services Executive Incentive Compensation Plan.		10-K	10.19 02/27/14
10.20	Amended and Restated Sempra Energy 2013 Long-Term Incentive Plan.		10-K	10.5 02/26/16
10.21	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Index.		10-Q	10.8 05/07/18
10.22	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Utilities Index.		10-Q	10.9 05/07/18
10.23	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure.		10-Q	10.10 05/07/18
10.24	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Time-Based Restricted Stock Unit Award - Cliff vest.		10-Q	10.11 05/07/18
10.25	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Special Time-Based Restricted Stock Unit Award - Two-year vest.		10-Q	10.12 05/07/18
10.26	Form of Sempra Energy 2013 Long-Term Incentive Plan 2018 Special Time-Based Restricted Stock Unit Award - Multi-year vest.		10-Q	10.13 05/07/18
10.27*	Severance Agreement and Mutual Release between San Diego Gas & Electric Company and Southern California Gas Company and P. Kevin Chase, dated April 19, 2019.		10-Q	10.8 05/07/19
10.28	Amended and Restated Sempra Energy 2005 Deferred Compensation Plan, now known as Sempra Energy Employee and Director Savings Plan.		10-K	10.40 02/26/19

* Certain sensitive personally identifiable information in this exhibit was omitted by means of redacting a portion of the text and replacing it with [***].

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form or Registration Statement No.	Exhibit or Appendix	Filing Date
10.29	Amended and Restated Sempra Energy Deferred Compensation and Excess Savings Plan.		10-K	10.28	02/28/17
10.30	2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective July 1, 2009.		10-K	10.28	02/26/16
10.31	First Amendment to the 2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective February 11, 2010.		10-K	10.29	02/26/16
10.32	Second Amendment to the 2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective January 1, 2014.		10-K	10.43	02/26/15
10.33	2015 Amendment and Restatement of the Sempra Energy Cash Balance Restoration Plan effective November 10, 2015.		10-K	10.31	02/26/16
10.34	Sempra Energy Amended and Restated Executive Life Insurance Plan.		10-K	10.22	02/26/13
10.35	Sempra Energy Executive Personal Financial Planning Program Policy Document.	X			
10.36	Form of Indemnification Agreement with Directors and Executive Officers.		10-Q	10.2	08/07/08
10.37	Sempra Energy Amended and Restated Executive Medical Plan.		10-K	10.26	02/24/09
10.38	Severance Pay Agreement between Sempra Energy and P. Kevin Chase, dated March 4, 2017.		10-K	10.50	02/26/19
10.39	Severance Pay Agreement between Sempra Energy and Bruce A. Folkmann, dated March 1, 2017.		10-Q	10.15	05/09/17

Sempra Energy

10.40	Form of Sempra Energy 2019 Long-Term Incentive Plan Non-Employee Directors' Annual Restricted Stock Unit Award.		10-Q	10.3	08/02/19
10.41	Form of Sempra Energy 2019 Long-Term Incentive Plan Non-Employee Directors' Initial Restricted Stock Unit Award.		10-Q	10.4	08/02/19
10.42	Severance Pay Agreement between Sempra Energy and George W. Bilicic, dated as of June 17, 2019.		10-Q	10.1	11/01/19
10.43	Sempra Energy Executive Incentive Plan effective January 1, 2003.		10-K	10.09	02/26/03
10.44	Amended and Restated Severance Pay Agreement between Sempra Energy and Jeffrey W. Martin, dated May 1, 2018.		10-Q	10.3	08/06/18
10.45	Amended and Restated Severance Pay Agreement between Sempra Energy and Trevor I. Mihalik, dated May 1, 2018.		10-Q	10.5	08/06/18
10.46	Severance Pay Agreement between Sempra Energy and Dennis Arriola, dated January 1, 2017.		10-K	10.42	02/28/17
10.47	Amended and Restated Severance Pay Agreement between Sempra Energy and Joseph A. Householder dated May 1, 2018.		10-Q	10.4	08/06/18
10.48	Amended and Restated Severance Pay Agreement between Sempra Energy and Peter R. Wall dated May 1, 2018.		10-Q	10.6	08/06/18
10.49	Form of 2017 and 2018 Sempra Energy Non-Employee Directors' Initial Restricted Stock Unit Award.		10-K	10.50	02/27/18

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form or Registration Statement No.	Exhibit or Appendix	Filing Date
10.50	Sempra Energy Amended and Restated Sempra Energy Retirement Plan for Directors.		10-Q	10.7	08/07/08
10.51	Sempra Energy Annual Incentive Plan.		10-Q	10.7	05/07/18
<i>Sempra Energy / San Diego Gas & Electric Company</i>					
10.52	Form of San Diego Gas & Electric Company Executive Incentive Compensation Plan.		10-K	10.64	02/27/14
10.53	Severance Pay Agreement between Sempra Energy and Caroline A. Winn dated March 1, 2017.		10-Q	10.6	05/09/17
10.54	Severance Pay Agreement between Sempra Energy and Diana L. Day dated March 1, 2017.		10-K	10.68	02/26/19
10.55	Severance Pay Agreement between Sempra Energy and Scott D. Drury dated August 25, 2018.		10-Q	10.4	11/07/18
10.56	Severance Pay Agreement between Sempra Energy and Kevin C. Sagara dated September 8, 2018.		10-Q	10.5	11/07/18
<i>Sempra Energy / Southern California Gas Company</i>					
10.57	Severance Pay Agreement between Sempra Energy and Mia DeMontigny, date June 15, 2019.		10-Q	10.6	08/02/19
10.58	Severance Pay Agreement between Sempra Energy and Maryam S. Brown, dated March 1, 2017.		10-Q	10.7	08/02/19
10.59	Form of Southern California Gas Company Executive Incentive Compensation Plan.		10-K	10.71	02/27/14
10.60	Severance Pay Agreement between Sempra Energy and J. Bret Lane, dated March 1, 2017.		10-Q	10.10	05/09/17
10.61	Severance Pay Agreement between Sempra Energy and Jimmie I. Cho, dated March 1, 2017.		10-K	10.75	02/26/19
10.62	Severance Pay Agreement between Sempra Energy and Gillian A. Wright, dated March 1, 2017.		10-K	10.76	02/26/19
10.63	Severance Pay Agreement between Sempra Energy and David J. Barrett, dated January 12, 2019.		10-K	10.77	02/26/19
<i>Nuclear</i>					
<i>Sempra Energy / San Diego Gas & Electric Company</i>					
10.64	Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated June 29, 1992.		10-K	10.7	(1)
10.65	Amendment No. 1 to the Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated September 30, 1994 (see Exhibit 10.64 above).		10-K	10.56	02/28/95
10.66	Second Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 29, 1994 (see Exhibit 10.64 above).		10-K	10.57	02/28/95
10.67	Third Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated March 1, 1996 (see Exhibit 10.64 above).		10-K	10.59	03/19/97

(1) Exhibit is not available on the SEC's website as it was filed in paper and predates EDGAR.

Exhibit Number	Exhibit Description	Filed Herewith	Incorporated by Reference		
			Form or Registration Statement No.	Exhibit or Appendix	Filing Date
10.68	Fourth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 23, 1996 (see Exhibit 10.64 above).		10-K	10.60	03/19/97
10.69	Fifth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 26, 1997 (see Exhibit 10.64 above).		10-K	10.26	03/29/00
10.70	Sixth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated October 1, 1999 (see Exhibit 10.64 above).		10-K	10.27	03/29/00
10.71	Seventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 24, 2003 (see Exhibit 10.64 above).		10-K	10.42	02/25/04
10.72	Eighth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated October 12, 2011 (see Exhibit 10.64 above).		10-K	10.70	02/28/12
10.73	Ninth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 9, 2014 (see Exhibit 10.64 above).		10-K	10.83	02/27/14
10.74	Tenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.64 above).		10-Q	10.1	11/04/14
10.75	Eleventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.64 above).		10-Q	10.2	11/04/14
10.76	Twelfth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.64 above).		10-Q	10.3	11/04/14
10.77	Thirteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 1, 2015 (see Exhibit 10.64 above).		10-K	10.78	02/26/16
10.78	Fourteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated February 18, 2016 (see Exhibit 10.64 above).		10-Q	10.1	11/02/16
10.79	Fifteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 31, 2016 (see Exhibit 10.64 above).		10-Q	10.2	11/02/16
10.80	U. S. Department of Energy contract for disposal of spent nuclear fuel and/or high-level radioactive waste, entered into between the DOE and Southern California Edison Company, as agent for SDG&E and others; Contract DE-CR01-83NE44418, dated June 10, 1983.		10-K	10N	(1)

EXHIBIT 14 – CODE OF ETHICS

Sempra Energy / San Diego Gas & Electric Company / Southern California Gas Company

14.1	Sempra Energy Code of Business Conduct and Ethics for Board of Directors and Senior Officers (also applies to directors and officers of San Diego Gas & Electric Company and Southern California Gas Company).		10-K	14.01	02/23/07
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⁽¹⁾ Exhibit is not available on the SEC's website as it was filed in paper and predates EDGAR

Exhibit Number	Exhibit Description	Filed Herewith
EXHIBIT 21 – SUBSIDIARIES		
<i>Sempra Energy</i>		
21.1	Sempra Energy Schedule of Certain Subsidiaries at December 31, 2019.	X
EXHIBIT 23 – CONSENTS OF EXPERTS AND COUNSEL		
<i>Sempra Energy</i>		
23.1	Sempra Energy Consent of Independent Registered Public Accounting Firm.	X
23.2	Oncor Electric Delivery Holdings Company LLC Consent of Independent Auditors.	X
<i>San Diego Gas & Electric Company</i>		
23.3	San Diego Gas & Electric Company Consent of Independent Registered Public Accounting Firm.	X
<i>Southern California Gas Company</i>		
23.4	Southern California Gas Company Consent of Independent Registered Public Accounting Firm.	X
EXHIBIT 31 – SECTION 302 CERTIFICATIONS		
<i>Sempra Energy</i>		
31.1	Certification of Sempra Energy’s Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
31.2	Certification of Sempra Energy’s Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
<i>San Diego Gas & Electric Company</i>		
31.3	Certification of San Diego Gas & Electric Company’s Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
31.4	Certification of San Diego Gas & Electric Company’s Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
<i>Southern California Gas Company</i>		
31.5	Certification of Southern California Gas Company’s Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
31.6	Certification of Southern California Gas Company’s Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.	X
EXHIBIT 32 – SECTION 906 CERTIFICATIONS		
<i>Sempra Energy</i>		
32.1	Certification of Sempra Energy’s Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.	X
32.2	Certification of Sempra Energy’s Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.	X
<i>San Diego Gas & Electric Company</i>		
32.3	Certification of San Diego Gas & Electric Company’s Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.	X
32.4	Certification of San Diego Gas & Electric Company’s Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.	X

Exhibit Number	Exhibit Description	Filed Herewith
<i>Southern California Gas Company</i>		
32.5	Certification of Southern California Gas Company's Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.	X
32.6	Certification of Southern California Gas Company's Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.	X
EXHIBIT 99 – ADDITIONAL EXHIBITS		
<i>Sempra Energy</i>		
99.1	Audited consolidated financial statements of Oncor Electric Delivery Holdings Company LLC and subsidiary as of December 31, 2019 and 2018 and for each of the three years ended in the period ended December 31, 2019, and the related Independent Auditors' Report.	X
EXHIBIT 101 – INTERACTIVE DATA FILE		
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data file because its XBRL tags are embedded within the Inline XBRL document.	X
101.SCH	XBRL Taxonomy Extension Schema Document.	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	X
EXHIBIT 104 – COVER PAGE		
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).	X

ITEM 16. FORM 10-K SUMMARY

Not applicable.

Sempra Energy:**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.

SEMPRA ENERGY,
(Registrant)

By: /s/ J. Walker Martin

J. Walker Martin
Chairman and Chief Executive Officer

Date: February 27, 2020

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 in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer: J. Walker Martin Chief Executive Officer	<u>/s/ J. Walker Martin</u>	February 27, 2020
Principal Financial Officer: Trevor I. Mihalik Executive Vice President and Chief Financial Officer	<u>/s/ Trevor I. Mihalik</u>	February 27, 2020
Principal Accounting Officer: Peter R. Wall Vice President, Controller and Chief Accounting Officer	<u>/s/ Peter R. Wall</u>	February 27, 2020
Directors: J. Walker Martin, Chairman	<u>/s/ J. Walker Martin</u>	February 27, 2020
Alan L. Boeckmann, Director	<u>/s/ Alan L. Boeckmann</u>	February 27, 2020
Kathleen L. Brown, Director	<u>/s/ Kathleen L. Brown</u>	February 27, 2020
Andrés Conesa, Director	<u>/s/ Andrés Conesa</u>	February 27, 2020
Maria Contreras-Sweet, Director	<u>/s/ Maria Contreras-Sweet</u>	February 27, 2020
Pablo A. Ferrero, Director	<u>/s/ Pablo A. Ferrero</u>	February 27, 2020
William D. Jones, Director	<u>/s/ William D. Jones</u>	February 27, 2020
Bethany J. Mayer, Director	<u>/s/ Bethany J. Mayer</u>	February 27, 2020
Michael N. Mears, Director	<u>/s/ Michael N. Mears</u>	February 27, 2020
William C. Rusnack, Director	<u>/s/ William C. Rusnack</u>	February 27, 2020
Lynn Schenk, Director	<u>/s/ Lynn Schenk</u>	February 27, 2020
Jack T. Taylor, Director	<u>/s/ Jack T. Taylor</u>	February 27, 2020
Cynthia L. Walker, Director	<u>/s/ Cynthia L. Walker</u>	February 27, 2020
Cynthia J. Warner, Director	<u>/s/ Cynthia J. Warner</u>	February 27, 2020
James C. Yardley, Director	<u>/s/ James C. Yardley</u>	February 27, 2020

San Diego Gas & Electric Company:

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.

SAN DIEGO GAS & ELECTRIC COMPANY,
(Registrant)

By: /s/ Kevin C. Sagara

Kevin C. Sagara
Chairman and Chief Executive Officer

Date: February 27, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934 (the Act), this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer: Kevin C. Sagara Chief Executive Officer	<u>/s/ Kevin C. Sagara</u>	February 27, 2020
Principal Financial and Accounting Officer: Bruce A. Folkmann Senior Vice President, Controller, Chief Financial Officer and Chief Accounting Officer	<u>/s/ Bruce A. Folkmann</u>	February 27, 2020
Directors: Kevin C. Sagara, Chairman	<u>/s/ Kevin C. Sagara</u>	February 27, 2020
Robert J. Borthwick, Director	<u>/s/ Robert J. Borthwick</u>	February 27, 2020
Erbin B. Keith, Director	<u>/s/ Erbin B. Keith</u>	February 27, 2020
Trevor I. Mihalik, Director	<u>/s/ Trevor I. Mihalik</u>	February 27, 2020

SUPPLEMENTAL INFORMATION TO BE FURNISHED WITH REPORTS FILED PURSUANT TO SECTION 15(d) OF THE ACT BY REGISTRANTS WHICH HAVE NOT REGISTERED SECURITIES PURSUANT TO SECTION 12 OF THE ACT:

No annual report, proxy statement, form of proxy or other soliciting material has been sent to security holders during the period covered by this annual report on Form 10-K, and no such materials are to be furnished to security holders subsequent to the filing of this annual report on Form 10-K.

Southern California Gas Company:

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.

SOUTHERN CALIFORNIA GAS COMPANY,
(Registrant)

By: /s/ J. Bret Lane

J. Bret Lane
Chairman and Chief Executive Officer

Date: February 27, 2020

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 in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer: J. Bret Lane Chief Executive Officer	<u>/s/ J. Bret Lane</u>	February 27, 2020
Principal Financial and Accounting Officer: Mia L. DeMontigny Vice President, Controller, Chief Financial Officer and Chief Accounting Officer	<u>/s/ Mia L. DeMontigny</u>	February 27, 2020
Directors: J. Bret Lane, Chairman	<u>/s/ J. Bret Lane</u>	February 27, 2020
Randall L. Clark, Director	<u>/s/ Randall L. Clark</u>	February 27, 2020
Lisa Larroque Alexander, Director	<u>/s/ Lisa Larroque Alexander</u>	February 27, 2020
Trevor I. Mihalik, Director	<u>/s/ Trevor I. Mihalik</u>	February 27, 2020

SEMPRA ENERGY
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Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2019, 2018 and 2017	F-8	F-15	F-21
Consolidated Balance Sheets at December 31, 2019 and 2018	F-9	F-16	F-22
Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018 and 2017	F-11	F-18	F-24
Consolidated Statements of Changes in Equity for the years ended December 31, 2019, 2018 and 2017	F-13	F-19	N/A
Statements of Changes in Shareholders' Equity for the years ended December 31, 2019, 2018 and 2017	N/A	N/A	F-25

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Sempra Energy:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Sempra Energy and subsidiaries (“Sempra Energy”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes and the schedule listed in Item 15 (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of Sempra Energy as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), Sempra Energy’s internal control over financial reporting as of December 31, 2019, 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 27, 2020, expressed an unqualified opinion on Sempra Energy’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of Sempra Energy’s management. Our responsibility is to express an opinion on Sempra Energy’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 Sempra Energy 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 audits 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Insurance Receivable for Aliso Canyon Costs - Refer to Note 16 of the Notes to Consolidated Financial Statements

Critical Audit Matter Description

Sempra Energy has an insurance receivable of \$339 million as of December 31, 2019, related to certain costs arising from the Aliso Canyon natural gas storage facility gas leak. Sempra Energy has determined that the insurance receivable is probable of recovery based on the nature of the insurance claims, the costs incurred, and the coverage provided by Sempra Energy’s applicable insurance policies.

We identified the recoverability of the insurance receivable as a critical audit matter due to the management judgments around how the coverage provided by Sempra Energy’s applicable insurance policies would cover the types of costs included in the insurance claims submitted. Auditing the probability of recovery of the insurance receivable required subjective auditor judgment and extensive audit effort, including the need to involve our insurance specialist.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the probability of recovery of the insurance receivable for the costs related to the Aliso Canyon natural gas storage facility gas leak included the following, among others:

- We tested the effectiveness of management’s internal controls over the costs included in the related insurance receivable and the evaluation of the recoverability of this insurance receivable.
- With the assistance of our insurance specialist, we evaluated management’s judgments related to the determination of the recoverability of the insurance receivable by:
 - Evaluating the coverage provided by Sempra Energy’s applicable insurance policies and evaluating the potential coverage available under such policies based on the nature of the underlying costs.
 - Evaluating the probability of recovery of the insurance receivable by obtaining correspondence between Sempra Energy and the applicable insurers, and through discussions with management and with Sempra Energy’s external legal counsel.
 - Searching external sources for and considering any contradictory evidence to Sempra Energy’s accounting assessment of probability of recoverability.
 - Evaluating Sempra Energy’s external legal counsel’s view on the recoverability of the insurance receivable.

Shareholder Contributions to the Wildfire Fund - Refer to Note 1 of the Notes to Consolidated Financial Statements

Critical Audit Matter Description

In July 2019, California Assembly Bill (“AB”) 1054 and AB 111 (together, the “Wildfire Legislation”) were signed into State law. In accordance with the Wildfire Legislation, on September 10, 2019, Sempra Energy’s subsidiary, San Diego Gas & Electric Company (“SDG&E”) made an initial contribution to a fund established by the Wildfire Legislation (the “Wildfire Fund”) of \$322.5 million and is required to make ten annual contributions of \$12.9 million. These initial and annual contributions (collectively, the “Contributions”) are not subject to rate recovery.

Accounting guidance must be applied analogously, as there is no specific accounting guidance that prescribes how Sempra Energy should account for the Contributions. There are several aspects of the Wildfire Fund, such as an indeterminate life of the Wildfire Fund and the timing and likelihood that Sempra Energy will benefit from the Wildfire Fund, that make the application of accounting guidance complex.

We identified the accounting for the Contributions as a critical audit matter due to the management judgments necessary to determine that insurance accounting should be applied, and that the Contributions should be accounted for as an asset and systematically and rationally expensed over the period of benefit. Auditing management’s conclusions required judgment in evaluating the appropriate accounting treatment for the Contributions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the accounting for the Contributions included the following, among others:

- We tested the effectiveness of management’s internal controls over the evaluation of the accounting treatment.
- With the assistance of professionals in our firm having expertise in insurance accounting, we evaluated management’s judgments related to the application of U.S. GAAP by evaluating management’s accounting analysis, Sempra Energy’s consideration of an insurance accounting model, and the potential methods of which to record the consumption of benefits related to the Contributions, to determine whether we agree with management’s accounting conclusions that the Contributions should be accounted for as an asset and systematically and rationally expensed over the estimated period of benefit.

Impact of Rate Regulation on the Financial Statements - Refer to Notes 1 and 4 of the Notes to Consolidated Financial Statements

Critical Audit Matter Description

Sempra Energy is subject to rate regulation by regulators and commissions in various jurisdictions (collectively, the “Commissions”) that have jurisdiction with respect to the rates of electric and gas transmission and distribution companies in those jurisdictions. Management has determined it meets the requirements under U.S. GAAP to prepare its financial statements applying the specialized rules to account for the effects of cost-based rate regulation. Accounting for the economics of rate regulation impacts multiple financial statement line items and disclosures, such as property, plant and equipment; regulatory assets and liabilities; operating revenues; operation and maintenance expense; depreciation expense; and taxes.

We identified the impact of rate regulation as a critical audit matter due to the significant judgments made by management to

support its assertions about impacted account balances and disclosures and the high degree of subjectivity involved in assessing the impact of future regulatory orders on the financial statements. Management's judgments include assessing the likelihood of (1) the recovery in future rates of incurred costs and (2) potential refunds to customers. Auditing these judgments required specialized knowledge of accounting for rate regulation and the rate setting process due to its inherent complexities.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the application of specialized rules to account for the effects of cost-based rate regulation and the uncertainty of future decisions by the Commissions included the following, among others:

- We tested the effectiveness of management's controls over the evaluation of the likelihood of (1) the recovery in future rates of costs deferred as regulatory assets, and (2) a refund or a future reduction in rates that should be reported as regulatory liabilities. We tested the effectiveness of management's controls over the initial recognition of amounts as regulatory assets or liabilities and the monitoring and evaluation of regulatory developments that may affect the likelihood of recovering costs in future rates or of a future reduction in rates.
- We read relevant regulatory orders issued by the Commissions for Sempra Energy and other publicly available information to assess the likelihood of recovery in future rates or of a future reduction in rates based on precedence of the Commissions' treatment of similar costs under similar circumstances. We evaluated the external information and compared to management's recorded regulatory asset and liability balances for completeness.
- We evaluated Sempra Energy's disclosures related to the impacts of rate regulation, including the balances recorded and regulatory developments.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2020

We have served as Sempra Energy's auditor since 1935.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholder and Board of Directors of San Diego Gas & Electric Company:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of San Diego Gas & Electric Company (“SDG&E”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows, for each of the three years in the period ended December 31, 2019, 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 SDG&E as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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”), SDG&E’s internal control over financial reporting as of December 31, 2019, 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 27, 2020, expressed an unqualified opinion on SDG&E’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of SDG&E’s management. Our responsibility is to express an opinion on SDG&E’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 SDG&E 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 audits 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

San Diego, California
February 27, 2020

We have served as SDG&E’s auditor since 1935.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Southern California Gas Company:

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Southern California Gas Company (“SoCalGas”) as of December 31, 2019 and 2018, the related statements of operations, comprehensive income (loss), changes in shareholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2019, 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 SoCalGas as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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”), SoCalGas’ internal control over financial reporting as of December 31, 2019, 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 27, 2020, expressed an unqualified opinion on SoCalGas’ internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of SoCalGas’ management. Our responsibility is to express an opinion on SoCalGas’ 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 SoCalGas 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 audits 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

San Diego, California
February 27, 2020

We have served as SoCalGas’ auditor since 1937.

SEMPRA ENERGY**CONSOLIDATED STATEMENTS OF OPERATIONS***(Dollars in millions, except per share amounts; shares in thousands)*

	Years ended December 31,		
	2019	2018	2017
REVENUES			
Utilities	\$ 9,448	\$ 8,539	\$ 8,290
Energy-related businesses	1,381	1,563	1,350
Total revenues	10,829	10,102	9,640
EXPENSES AND OTHER INCOME			
Utilities:			
Cost of natural gas	(1,139)	(1,208)	(1,190)
Cost of electric fuel and purchased power	(1,188)	(1,358)	(1,293)
Energy-related businesses cost of sales	(344)	(357)	(291)
Operation and maintenance	(3,466)	(3,150)	(2,947)
Depreciation and amortization	(1,569)	(1,491)	(1,436)
Franchise fees and other taxes	(496)	(472)	(436)
Write-off of wildfire regulatory asset	—	—	(351)
Impairment losses	(43)	(1,122)	(72)
Gain on sale of assets	63	513	2
Other income, net	77	58	220
Interest income	87	85	24
Interest expense	(1,077)	(886)	(622)
Income from continuing operations before income taxes and equity earnings	1,734	714	1,248
Income tax (expense) benefit	(315)	49	(938)
Equity earnings	580	175	72
Income from continuing operations, net of income tax	1,999	938	382
Income (loss) from discontinued operations, net of income tax	363	188	(31)
Net income	2,362	1,126	351
Earnings attributable to noncontrolling interests	(164)	(76)	(94)
Mandatory convertible preferred stock dividends	(142)	(125)	—
Preferred dividends of subsidiary	(1)	(1)	(1)
Earnings attributable to common shares	\$ 2,055	\$ 924	\$ 256
Basic EPS:			
Earnings from continuing operations	\$ 6.22	\$ 2.86	\$ 1.25
Earnings (losses) from discontinued operations	\$ 1.18	\$ 0.59	\$ (0.23)
Earnings	\$ 7.40	\$ 3.45	\$ 1.02
Weighted-average common shares outstanding	277,904	268,072	251,545
Diluted EPS:			
Earnings from continuing operations	\$ 6.13	\$ 2.84	\$ 1.24
Earnings (losses) from discontinued operations	\$ 1.16	\$ 0.58	\$ (0.23)
Earnings	\$ 7.29	\$ 3.42	\$ 1.01
Weighted-average common shares outstanding	282,033	269,852	252,300

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

Years ended December 31, 2019, 2018 and 2017

	Sempra Energy shareholders' equity					Total
	Pretax amount	Income tax (expense) benefit	Net-of-tax amount	Noncontrolling interests (after tax)		
2019:						
Net income	\$ 2,585	\$ (387)	\$ 2,198	\$ 164	\$	2,362
Other comprehensive income (loss):						
Foreign currency translation adjustments	(43)	—	(43)	3		(40)
Financial instruments	(161)	53	(108)	(10)		(118)
Pension and other postretirement benefits	25	(7)	18	—		18
Total other comprehensive loss	(179)	46	(133)	(7)		(140)
Comprehensive income	2,406	(341)	2,065	157		2,222
Preferred dividends of subsidiary	(1)	—	(1)	—		(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 2,405	\$ (341)	\$ 2,064	\$ 157	\$	2,221
2018:						
Net income	\$ 1,146	\$ (96)	\$ 1,050	\$ 76	\$	1,126
Other comprehensive income (loss):						
Foreign currency translation adjustments	(144)	—	(144)	(11)		(155)
Financial instruments	64	(21)	43	13		56
Pension and other postretirement benefits	(38)	4	(34)	—		(34)
Total other comprehensive (loss) income	(118)	(17)	(135)	2		(133)
Comprehensive income	1,028	(113)	915	78		993
Preferred dividends of subsidiary	(1)	—	(1)	—		(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 1,027	\$ (113)	\$ 914	\$ 78	\$	992
2017:						
Net income	\$ 1,533	\$ (1,276)	\$ 257	\$ 94	\$	351
Other comprehensive income (loss):						
Foreign currency translation adjustments	107	—	107	8		115
Financial instruments	2	1	3	12		15
Pension and other postretirement benefits	20	(8)	12	—		12
Total other comprehensive income	129	(7)	122	20		142
Comprehensive income	1,662	(1,283)	379	114		493
Preferred dividends of subsidiary	(1)	—	(1)	—		(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 1,661	\$ (1,283)	\$ 378	\$ 114	\$	492

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED BALANCE SHEETS

(Dollars in millions)

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 108	\$ 102
Restricted cash	31	35
Accounts receivable – trade, net	1,261	1,215
Accounts receivable – other, net	455	320
Due from unconsolidated affiliates	32	37
Income taxes receivable	112	60
Inventories	277	258
Regulatory assets	222	138
Greenhouse gas allowances	72	59
Assets held for sale	—	713
Assets held for sale in discontinued operations	445	459
Other current assets	324	249
Total current assets	3,339	3,645
Other assets:		
Restricted cash	3	21
Due from unconsolidated affiliates	742	644
Regulatory assets	1,930	1,589
Nuclear decommissioning trusts	1,082	974
Investment in Oncor Holdings	11,519	9,652
Other investments	2,103	2,320
Goodwill	1,602	1,602
Other intangible assets	213	224
Dedicated assets in support of certain benefit plans	488	416
Insurance receivable for Aliso Canyon costs	339	461
Deferred income taxes	155	141
Greenhouse gas allowances	470	289
Right-of-use assets – operating leases	591	—
Wildfire fund	392	—
Assets held for sale in discontinued operations	3,513	3,259
Other long-term assets	732	962
Total other assets	25,874	22,554
Property, plant and equipment:		
Property, plant and equipment	49,329	46,615
Less accumulated depreciation and amortization	(12,877)	(12,176)
Property, plant and equipment, net (\$295 at December 31, 2018 related to Otay Mesa VIE)	36,452	34,439
Total assets	\$ 65,665	\$ 60,638

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED BALANCE SHEETS (CONTINUED)

(Dollars in millions)

	December 31, 2019	December 31, 2018
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	\$ 3,505	\$ 2,024
Accounts payable – trade	1,234	1,160
Accounts payable – other	179	138
Due to unconsolidated affiliates	5	10
Dividends and interest payable	515	480
Accrued compensation and benefits	476	440
Regulatory liabilities	319	105
Current portion of long-term debt and finance leases (\$28 at December 31, 2018 related to Otay Mesa VE)	1,526	1,644
Reserve for Aliso Canyon costs	9	160
Greenhouse gas obligations	72	59
Liabilities held for sale in discontinued operations	444	368
Other current liabilities	866	935
Total current liabilities	9,150	7,523
Long-term debt and finance leases (\$190 at December 31, 2018 related to Otay Mesa VE)	20,785	20,903
Deferred credits and other liabilities:		
Due to unconsolidated affiliates	195	37
Pension and other postretirement benefit plan obligations, net of plan assets	1,067	1,143
Deferred income taxes	2,577	2,321
Deferred investment tax credits	21	24
Regulatory liabilities	3,741	4,016
Asset retirement obligations	2,923	2,786
Greenhouse gas obligations	301	131
Liabilities held for sale in discontinued operations	1,052	1,013
Deferred credits and other	2,048	1,493
Total deferred credits and other liabilities	13,925	12,964
Commitments and contingencies (Note 16)		
Equity:		
Preferred stock (50 million shares authorized):		
6% mandatory convertible preferred stock, series A (17.25 million shares issued and outstanding)	1,693	1,693
6.75% mandatory convertible preferred stock, series B (5.75 million shares issued and outstanding)	565	565
Common stock (750 million shares authorized; 292 million and 274 million shares outstanding at December 31, 2019 and 2018, respectively; no par value)	7,480	5,540
Retained earnings	11,130	10,104
Accumulated other comprehensive income (loss)	(939)	(764)
Total Sempra Energy shareholders' equity	19,929	17,138
Preferred stock of subsidiary	20	20
Other noncontrolling interests	1,856	2,090
Total equity	21,805	19,248
Total liabilities and equity	\$ 65,665	\$ 60,638

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 2,362	\$ 1,126	\$ 351
Less: (Income) loss from discontinued operations, net of income tax	(363)	(188)	31
Income from continuing operations, net of income tax	1,999	938	382
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,569	1,491	1,436
Deferred income taxes and investment tax credits	189	(242)	889
Write-off of wildfire regulatory asset	—	—	351
Impairment losses	43	1,122	72
Gain on sale of assets	(63)	(513)	(2)
Equity earnings	(580)	(175)	(72)
Share-based compensation expense	75	83	82
Other	26	112	22
Net change in other working capital components:			
Accounts receivable	(91)	(145)	29
Income taxes receivable/payable, net	(166)	88	(78)
Inventories	(22)	32	(42)
Other current assets	(88)	(79)	(6)
Accounts payable	12	96	84
Regulatory balancing accounts	13	263	108
Reserve for Aliso Canyon costs	(144)	56	31
Other current liabilities	(99)	52	(19)
Intercompany activities with discontinued operations, net	378	70	8
Insurance receivable for Aliso Canyon costs	122	(43)	188
Wildfire fund, current and noncurrent	(323)	—	—
Changes in other noncurrent assets and liabilities, net	(152)	14	(124)
Net cash provided by continuing operations	2,698	3,220	3,339
Net cash provided by discontinued operations	390	296	286
Net cash provided by operating activities	3,088	3,516	3,625
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(3,708)	(3,544)	(3,705)
Expenditures for investments and acquisitions, net of cash and cash equivalents acquired	(1,797)	(10,168)	(269)
Proceeds from sale of assets	899	1,580	15
Purchases of nuclear decommissioning trust assets	(914)	(890)	(1,314)
Proceeds from sales of nuclear decommissioning trust assets	914	890	1,314
Advances to unconsolidated affiliates	(16)	(95)	(505)
Repayments of advances to unconsolidated affiliates	3	3	9
Intercompany activities with discontinued operations, net	8	(22)	(18)
Other	30	41	24
Net cash used in continuing operations	(4,581)	(12,205)	(4,449)
Net cash used in discontinued operations	(12)	(265)	(436)
Net cash used in investing activities	(4,593)	(12,470)	(4,885)

See Notes to Consolidated Financial Statements

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	(993)	(877)	(755)
Preferred dividends paid	(142)	(89)	—
Issuances of mandatory convertible preferred stock, net	—	2,258	—
Issuances of common stock, net	1,830	2,272	47
Repurchases of common stock	(26)	(21)	(15)
Issuances of debt (maturities greater than 90 days)	4,296	8,927	4,260
Payments on debt (maturities greater than 90 days) and finance leases	(3,667)	(3,342)	(2,587)
Increase (decrease) in short-term debt, net	656	(84)	(39)
Advances from unconsolidated affiliates	155	—	35
Proceeds from sale of noncontrolling interests, net	5	90	196
Purchases of noncontrolling interests	(30)	(7)	—
Contributions from (distributions to) noncontrolling interests, net	98	(26)	(114)
Intercompany activities with discontinued operations, net	(266)	(109)	167
Other	(49)	(117)	(43)
Net cash provided by continuing operations	1,867	8,875	1,152
Net cash (used in) provided by discontinued operations	(392)	(25)	40
Net cash provided by financing activities	1,475	8,850	1,192
Effect of exchange rate changes in continuing operations	—	(2)	(2)
Effect of exchange rate changes in discontinued operations	1	(12)	9
Effect of exchange rate changes on cash, cash equivalents and restricted cash	1	(14)	7
Decrease in cash, cash equivalents and restricted cash, including discontinued operations	(29)	(118)	(61)
Cash, cash equivalents and restricted cash, including discontinued operations, January 1	246	364	425
Cash, cash equivalents and restricted cash, including discontinued operations, December 31	\$ 217	\$ 246	\$ 364
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 1,051	\$ 773	\$ 599
Income tax payments, net of refunds	254	107	122
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Acquisitions:			
Assets acquired, net of cash and cash equivalents acquired	\$ —	\$ 9,670	\$ 436
Value of equity method investment immediately prior to acquisition	—	—	(28)
Liabilities assumed	—	(102)	(261)
Cash paid, net of cash and cash equivalents acquired	\$ —	\$ 9,568	\$ 147
Accrued interest receivable from unconsolidated affiliate	\$ 55	\$ 62	\$ 22
Accrued capital expenditures	515	425	520
Accrued commercial paper proceeds	67	—	—
Increase in finance lease obligations for investment in property, plant and equipment	38	556	503
Preferred dividends declared but not paid	36	36	—
Common dividends issued in stock	55	54	53
Common dividends declared but not paid	283	245	207

See Notes to Consolidated Financial Statements

SEMPRA ENERGY

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Dollars in millions)

Years ended December 31, 2019, 2018 and 2017

	Preferred stock	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	Sempra Energy shareholders' equity	Non-controlling interests	Total equity
Balance at December 31, 2016	\$ —	\$ 2,982	\$ 10,717	\$ (748)	\$ 12,951	\$ 2,290	\$ 15,241
Net income			257		257	94	351
Other comprehensive income				122	122	20	142
Share-based compensation expense		82			82		82
Dividends declared:							
Common stock (\$3.29/share)			(826)		(826)		(826)
Preferred dividends of subsidiary			(1)		(1)		(1)
Issuances of common stock		100			100		100
Repurchases of common stock		(15)			(15)		(15)
Noncontrolling interest activities:							
Contributions						2	2
Distributions						(132)	(132)
Sales, net of offering costs						196	196
Balance at December 31, 2017	—	3,149	10,147	(626)	12,670	2,470	15,140
Cumulative-effect adjustments from change in accounting principles			2	(3)	(1)		(1)
Net income			1,050		1,050	76	1,126
Other comprehensive (loss) income				(135)	(135)	2	(133)
Share-based compensation expense		83			83		83
Dividends declared:							
Series A preferred stock (\$6.10/share)			(105)		(105)		(105)
Series B preferred stock (\$3.41/share)			(20)		(20)		(20)
Common stock (\$3.58/share)			(969)		(969)		(969)
Preferred dividends of subsidiary			(1)		(1)		(1)
Issuance of series A preferred stock	1,693				1,693		1,693
Issuance of series B preferred stock	565				565		565
Issuances of common stock		2,326			2,326		2,326
Repurchases of common stock		(21)			(21)		(21)
Noncontrolling interest activities:							
Contributions						66	66
Distributions						(110)	(110)
Purchases		(1)			(1)	(7)	(8)
Sales, net of offering costs		4			4	86	90
Acquisition						13	13
Deconsolidations						(486)	(486)
Balance at December 31, 2018	2,258	5,540	10,104	(764)	17,138	2,110	19,248
Cumulative-effect adjustments from change in accounting principles			57	(42)	15		15
Net income			2,198		2,198	164	2,362
Other comprehensive loss				(133)	(133)	(7)	(140)
Share-based compensation expense		75			75		75
Dividends declared:							
Series A preferred stock (\$6.00/share)			(103)		(103)		(103)
Series B preferred stock (\$6.75/share)			(39)		(39)		(39)
Common stock (\$3.87/share)			(1,086)		(1,086)		(1,086)
Preferred dividends of subsidiary			(1)		(1)		(1)
Issuances of common stock		1,885			1,885		1,885
Repurchases of common stock		(26)			(26)		(26)
Noncontrolling interest activities:							
Contributions						175	175
Distributions		5			5	(103)	(98)
Purchases		(3)			(3)	(27)	(30)
Sale		4			4	1	5
Acquisition						3	3
Deconsolidations						(440)	(440)
Balance at December 31, 2019	\$ 2,258	\$ 7,480	\$ 11,130	\$ (939)	\$ 19,929	\$ 1,876	\$ 21,805

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Operating revenues			
Electric	\$ 4,267	\$ 4,003	\$ 3,935
Natural gas	658	565	541
Total operating revenues	4,925	4,568	4,476
Operating expenses			
Cost of electric fuel and purchased power	1,194	1,370	1,293
Cost of natural gas	176	152	164
Operation and maintenance	1,181	1,058	1,024
Depreciation and amortization	760	688	670
Franchise fees and other taxes	301	290	265
Write-off of wildfire regulatory asset	—	—	351
Total operating expenses	3,612	3,558	3,767
Operating income	1,313	1,010	709
Other income, net	39	56	70
Interest income	4	4	—
Interest expense	(411)	(221)	(203)
Income before income taxes	945	849	576
Income tax expense	(171)	(173)	(155)
Net income	774	676	421
Earnings attributable to noncontrolling interest	(7)	(7)	(14)
Earnings attributable to common shares	\$ 767	\$ 669	\$ 407

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

	Years ended December 31, 2019, 2018 and 2017				
	SDG&E shareholder's equity			Noncontrolling interest (after tax)	Total
	Pretax amount	Income tax (expense) benefit	Net-of-tax amount		
2019:					
Net income	\$ 938	\$ (171)	\$ 767	\$ 7	\$ 774
Other comprehensive income (loss):					
Financial instruments	—	—	—	2	2
Pension and other postretirement benefits	(6)	2	(4)	—	(4)
Total other comprehensive (loss) income	(6)	2	(4)	2	(2)
Comprehensive income	\$ 932	\$ (169)	\$ 763	\$ 9	\$ 772
2018:					
Net income	\$ 842	\$ (173)	\$ 669	\$ 7	\$ 676
Other comprehensive income (loss):					
Financial instruments	—	—	—	8	8
Pension and other postretirement benefits	(2)	—	(2)	—	(2)
Total other comprehensive (loss) income	(2)	—	(2)	8	6
Comprehensive income	\$ 840	\$ (173)	\$ 667	\$ 15	\$ 682
2017:					
Net income	\$ 562	\$ (155)	\$ 407	\$ 14	\$ 421
Other comprehensive income (loss):					
Financial instruments	—	—	—	11	11
Pension and other postretirement benefits	(1)	1	—	—	—
Total other comprehensive (loss) income	(1)	1	—	11	11
Comprehensive income	\$ 561	\$ (154)	\$ 407	\$ 25	\$ 432

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY**CONSOLIDATED BALANCE SHEETS***(Dollars in millions)*

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 10	\$ 8
Restricted cash	—	11
Accounts receivable – trade, net	398	368
Accounts receivable – other, net	119	106
Income taxes receivable, net	128	—
Inventories	94	102
Prepaid expenses	120	74
Regulatory assets	209	123
Fixed-price contracts and other derivatives	43	82
Greenhouse gas allowances	13	15
Other current assets	24	5
Total current assets	1,158	894
Other assets:		
Restricted cash	—	18
Regulatory assets	440	454
Nuclear decommissioning trusts	1,082	974
Greenhouse gas allowances	189	155
Right-of-use assets – operating leases	130	—
Wildfire fund	392	—
Other long-term assets	202	420
Total other assets	2,435	2,021
Property, plant and equipment:		
Property, plant and equipment	22,504	21,662
Less accumulated depreciation and amortization	(5,537)	(5,352)
Property, plant and equipment, net (\$295 at December 31, 2018 related to ME)	16,967	16,310
Total assets	\$ 20,560	\$ 19,225

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED BALANCE SHEETS (CONTINUED)

(Dollars in millions)

	December 31, 2019	December 31, 2018
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	\$ 80	\$ 291
Accounts payable	496	439
Due to unconsolidated affiliates	53	61
Accrued compensation and benefits	138	117
Accrued franchise fees	53	64
Regulatory liabilities	76	53
Current portion of long-term debt and finance leases (\$28 at December 31, 2018 related to VE)	56	81
Customer deposits	74	70
Greenhouse gas obligations	13	15
Asset retirement obligations	95	96
Other current liabilities	176	141
Total current liabilities	1,310	1,428
Long-term debt and finance leases (\$190 at December 31, 2018 related to VE)	6,306	6,138
Deferred credits and other liabilities:		
Pension obligation, net of plan assets	153	212
Deferred income taxes	1,848	1,616
Deferred investment tax credits	14	16
Regulatory liabilities	2,319	2,404
Asset retirement obligations	771	778
Greenhouse gas obligations	62	30
Deferred credits and other	677	488
Total deferred credits and other liabilities	5,844	5,544
Commitments and contingencies (Note 16)		
Equity:		
Preferred stock (45 million shares authorized; none issued)	—	—
Common stock (255 million shares authorized; 117 million shares outstanding; no par value)	1,660	1,338
Retained earnings	5,456	4,687
Accumulated other comprehensive income (loss)	(16)	(10)
Total SDG&E shareholder's equity	7,100	6,015
Noncontrolling interest	—	100
Total equity	7,100	6,115
Total liabilities and equity	\$ 20,560	\$ 19,225

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 774	\$ 676	\$ 421
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	760	688	670
Deferred income taxes and investment tax credits	105	39	(10)
Write-off of wildfire regulatory asset	—	—	351
Other	13	(17)	(24)
Net change in other working capital components:			
Accounts receivable	(15)	30	(76)
Due to/from affiliates, net	(8)	(2)	(10)
Income taxes receivable/payable, net	(126)	23	136
Inventories	4	3	(25)
Other current assets	(19)	(6)	9
Accounts payable	32	(1)	75
Regulatory balancing accounts	(101)	138	56
Other current liabilities	4	4	4
Wildfire fund, current and noncurrent	(323)	—	—
Changes in other noncurrent assets and liabilities, net	(10)	9	(30)
Net cash provided by operating activities	<u>1,090</u>	<u>1,584</u>	<u>1,547</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(1,522)	(1,542)	(1,555)
Decrease in cash from deconsolidation of Otay Mesa VE	(8)	—	—
Purchases of nuclear decommissioning trust assets	(914)	(890)	(1,314)
Proceeds from sales of nuclear decommissioning trust assets	914	890	1,314
Decrease in loans to affiliate, net	—	—	31
Other	8	—	9
Net cash used in investing activities	<u>(1,522)</u>	<u>(1,542)</u>	<u>(1,515)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	—	(250)	(450)
Equity contribution from Sempra Energy	322	—	—
Issuances of debt (maturities greater than 90 days)	400	618	398
Payments on debt (maturities greater than 90 days) and finance leases	(274)	(492)	(186)
(Decrease) increase in short-term debt, net	(211)	38	253
Contributions from (distributions to) noncontrolling interest, net	172	57	(34)
Debt issuance costs	(4)	(5)	(4)
Net cash provided by (used in) financing activities	<u>405</u>	<u>(34)</u>	<u>(23)</u>
(Decrease) increase in cash, cash equivalents and restricted cash	(27)	8	9
Cash, cash equivalents and restricted cash, January 1	37	29	20
Cash, cash equivalents and restricted cash, December 31	<u>\$ 10</u>	<u>\$ 37</u>	<u>\$ 29</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 405	\$ 214	\$ 195
Income tax payments, net of refunds	191	112	27
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Accrued capital expenditures	\$ 174	\$ 159	\$ 217
Increase in finance lease obligations for investment in property, plant and equipment	16	550	500

See Notes to Consolidated Financial Statements

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Dollars in millions)

Years ended December 31, 2019, 2018 and 2017

	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	SDG&E shareholder's equity	Noncontrolling interest	Total equity
Balance at December 31, 2016	\$ 1,338	\$ 4,311	\$ (8)	\$ 5,641	\$ 37	\$ 5,678
Net income		407		407	14	421
Other comprehensive income					11	11
Common stock dividends declared (\$3.86/share)		(450)		(450)		(450)
Noncontrolling interest activities:						
Contributions					1	1
Distributions					(35)	(35)
Balance at December 31, 2017	1,338	4,268	(8)	5,598	28	5,626
Net income		669		669	7	676
Other comprehensive (loss) income			(2)	(2)	8	6
Common stock dividends declared (\$2.14/share)		(250)		(250)		(250)
Noncontrolling interest activities:						
Contributions					65	65
Distributions					(8)	(8)
Balance at December 31, 2018	1,338	4,687	(10)	6,015	100	6,115
Cumulative-effect adjustment from change in accounting principle		2	(2)	—		—
Net income		767		767	7	774
Other comprehensive (loss) income			(4)	(4)	2	(2)
Equity contribution from Sempra Energy	322			322		322
Noncontrolling interest activities:						
Contributions					175	175
Distributions					(3)	(3)
Deconsolidation					(281)	(281)
Balance at December 31, 2019	\$ 1,660	\$ 5,456	\$ (16)	\$ 7,100	\$ —	\$ 7,100

See Notes to Consolidated Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY**STATEMENTS OF OPERATIONS***(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
Operating revenues	\$ 4,525	\$ 3,962	\$ 3,785
Operating expenses			
Cost of natural gas	977	1,048	1,025
Operation and maintenance	1,780	1,613	1,474
Depreciation and amortization	602	556	515
Franchise fees and other taxes	173	154	144
Impairment losses	37	—	—
Total operating expenses	3,569	3,371	3,158
Operating income	956	591	627
Other (expense) income, net	(55)	15	31
Interest income	2	2	1
Interest expense	(141)	(115)	(102)
Income before income taxes	762	493	557
Income tax expense	(120)	(92)	(160)
Net income	642	401	397
Preferred dividends	(1)	(1)	(1)
Earnings attributable to common shares	\$ 641	\$ 400	\$ 396

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Dollars in millions)

	Years ended December 31, 2019, 2018 and 2017		
	Pretax amount	Income tax expense	Net-of-tax amount
2019:			
Net income	\$ 762	\$ (120)	\$ 642
Other comprehensive income (loss):			
Financial instruments	1	—	1
Pension and other postretirement benefits	1	(1)	—
Total other comprehensive income	2	(1)	1
Comprehensive income	\$ 764	\$ (121)	\$ 643
2018:			
Net income	\$ 493	\$ (92)	\$ 401
Other comprehensive income (loss):			
Financial instruments	1	—	1
Total other comprehensive income	1	—	1
Comprehensive income	\$ 494	\$ (92)	\$ 402
2017:			
Net income	\$ 557	\$ (160)	\$ 397
Other comprehensive income (loss):			
Pension and other postretirement benefits	1	—	1
Total other comprehensive income	1	—	1
Comprehensive income	\$ 558	\$ (160)	\$ 398

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY**BALANCE SHEETS***(Dollars in millions)*

	December 31, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 10	\$ 18
Accounts receivable – trade, net	710	634
Accounts receivable – other, net	87	97
Due from unconsolidated affiliates	11	7
Income taxes receivable, net	161	2
Inventories	136	134
Regulatory assets	7	12
Greenhouse gas allowances	52	37
Other current assets	44	29
Total current assets	1,218	970
Other assets:		
Regulatory assets	1,407	1,051
Insurance receivable for Aliso Canyon costs	339	461
Greenhouse gas allowances	248	116
Right-of-use assets – operating leases	94	—
Other long-term assets	447	352
Total other assets	2,535	1,980
Property, plant and equipment:		
Property, plant and equipment	19,362	18,138
Less accumulated depreciation and amortization	(6,038)	(5,699)
Property, plant and equipment, net	13,324	12,439
Total assets	\$ 17,077	\$ 15,389

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
BALANCE SHEETS (CONTINUED)
(Dollars in millions)

	December 31, 2019	December 31, 2018
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt	\$ 630	\$ 256
Accounts payable – trade	545	556
Accounts payable – other	110	93
Due to unconsolidated affiliates	47	34
Accrued compensation and benefits	182	159
Regulatory liabilities	243	52
Current portion of long-term debt and finance leases	6	3
Customer deposits	71	101
Reserve for Aliso Canyon costs	9	160
Greenhouse gas obligations	52	37
Asset retirement obligations	65	90
Other current liabilities	222	217
Total current liabilities	2,182	1,758
Long-term debt and finance leases	3,788	3,427
Deferred credits and other liabilities:		
Pension obligation, net of plan assets	785	760
Deferred income taxes	1,403	1,177
Deferred investment tax credits	7	8
Regulatory liabilities	1,422	1,612
Asset retirement obligations	2,112	1,973
Greenhouse gas obligations	208	86
Deferred credits and other	422	330
Total deferred credits and other liabilities	6,359	5,946
Commitments and contingencies (Note 16)		
Shareholders' equity:		
Preferred stock (11 million shares authorized; 1 million shares outstanding)	22	22
Common stock (100 million shares authorized; 91 million shares outstanding; no par value)	866	866
Retained earnings	3,883	3,390
Accumulated other comprehensive income (loss)	(23)	(20)
Total shareholders' equity	4,748	4,258
Total liabilities and shareholders' equity	\$ 17,077	\$ 15,389

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 642	\$ 401	\$ 397
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	602	556	515
Deferred income taxes and investment tax credits	88	78	137
Impairment losses	37	—	—
Other	(5)	(7)	11
Net change in working capital components:			
Accounts receivable	(73)	(87)	72
Due to/from affiliates, net	(1)	(10)	7
Income taxes receivable/payable, net	(156)	14	(5)
Inventories	1	(2)	(66)
Other current assets	(9)	11	—
Accounts payable	(7)	71	39
Regulatory balancing accounts	114	125	53
Reserve for Aliso Canyon costs	(144)	56	31
Other current liabilities	(21)	(6)	20
Insurance receivable for Aliso Canyon costs	122	(43)	188
Changes in other noncurrent assets and liabilities, net	(322)	(144)	(93)
Net cash provided by operating activities	868	1,013	1,306
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(1,439)	(1,538)	(1,367)
Other	1	7	4
Net cash used in investing activities	(1,438)	(1,531)	(1,363)
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	(150)	(50)	—
Preferred dividends paid	(1)	(1)	(1)
Issuances of debt (maturities greater than 90 days)	349	949	—
Payments on debt (maturities greater than 90 days) and finance leases	(6)	(500)	—
Increase in short-term debt, net	374	140	54
Debt issuance costs	(4)	(10)	—
Net cash provided by financing activities	562	528	53
(Decrease) increase in cash and cash equivalents	(8)	10	(4)
Cash and cash equivalents, January 1	18	8	12
Cash and cash equivalents, December 31	\$ 10	\$ 18	\$ 8
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 126	\$ 105	\$ 97
Income tax payments, net of refunds	188	—	28
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Accrued capital expenditures	\$ 205	\$ 191	\$ 208
Increase in finance lease obligations for investment in property, plant and equipment	22	6	3

See Notes to Consolidated Financial Statements

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(Dollars in millions)

	Years ended December 31, 2019, 2018 and 2017				
	Preferred stock	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	Total shareholders' equity
Balance at December 31, 2016	\$ 22	\$ 866	\$ 2,644	\$ (22)	\$ 3,510
Net income			397		397
Other comprehensive income				1	1
Preferred stock dividends declared (\$1.50/share)			(1)		(1)
Balance at December 31, 2017	22	866	3,040	(21)	3,907
Net income			401		401
Other comprehensive income				1	1
Dividends declared:					
Preferred stock (\$1.50/share)			(1)		(1)
Common stock (\$0.55/share)			(50)		(50)
Balance at December 31, 2018	22	866	3,390	(20)	4,258
Cumulative-effect adjustment from change in accounting principle			2	(4)	(2)
Net income			642		642
Other comprehensive income				1	1
Dividends declared:					
Preferred stock (\$1.50/share)			(1)		(1)
Common stock (\$1.64/share)			(150)		(150)
Balance at December 31, 2019	\$ 22	\$ 866	\$ 3,883	\$ (23)	\$ 4,748

See Notes to Financial Statements.

SEMPRA ENERGY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. SIGNIFICANT ACCOUNTING POLICIES AND OTHER FINANCIAL DATA

PRINCIPLES OF CONSOLIDATION

Sempra Energy

Sempra Energy's Consolidated Financial Statements include the accounts of Sempra Energy, a California-based energy-services holding company, and its consolidated subsidiaries and VIEs. Sempra Global is the holding company for most of our subsidiaries that are not subject to California or Texas utility regulation. Sempra Energy's businesses were managed within six separate reportable segments until April 2019 and five separate reportable segments thereafter, which we discuss in Note 17. In the first quarter of 2019, our Sempra LNG & Midstream segment was renamed "Sempra LNG." This segment name change had no impact on our historical position, results of operations, cash flow or segment level results previously reported. All references in these Notes to our reportable segments are not intended to refer to any legal entity with the same or similar name.

SDG&E

SDG&E's Consolidated Financial Statements include its accounts and the accounts of a VIE of which SDG&E was the primary beneficiary until August 23, 2019, at which time SDG&E deconsolidated the VIE, as we discuss below in "Variable Interest Entities." SDG&E's common stock is wholly owned by Enova, which is a wholly owned subsidiary of Sempra Energy.

SoCalGas

SoCalGas' common stock is wholly owned by PE, which is a wholly owned subsidiary of Sempra Energy.

In this report, we refer to SDG&E and SoCalGas collectively as the California Utilities.

BASIS OF PRESENTATION

This is a combined report of Sempra Energy, SDG&E and SoCalGas. We provide separate information for SDG&E and SoCalGas as required. References in this report to "we," "our" and "Sempra Energy Consolidated" are to Sempra Energy and its consolidated entities, unless otherwise indicated by the context. We have eliminated intercompany accounts and transactions within the consolidated financial statements of each reporting entity.

Throughout this report, we refer to the following as Consolidated Financial Statements and Notes to Consolidated Financial Statements when discussed together or collectively:

- the Consolidated Financial Statements and related Notes of Sempra Energy and its subsidiaries and VIEs;
- the Consolidated Financial Statements and related Notes of SDG&E and its VIE (until deconsolidation of the VIE in August 2019); and
- the Financial Statements and related Notes of SoCalGas.

Use of Estimates in the Preparation of the Financial Statements

We have prepared our Consolidated Financial Statements in conformity with U.S. GAAP. This requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes, including the disclosure of contingent assets and liabilities at the date of the financial statements. Although we believe the estimates and assumptions are reasonable, actual amounts ultimately may differ significantly from those estimates.

Discontinued Operations

In January 2019, our board of directors approved a plan to sell our South American businesses based on our strategic focus on North America. We determined that these businesses, which previously constituted the Sempra South American Utilities segment, and certain activities associated with these businesses, met the held-for-sale criteria. These businesses are presented as discontinued operations, as the planned sales represent a strategic shift that will have a major effect on our operations and financial results. Throughout this report, the financial information for all periods presented has been adjusted to reflect the

presentation of these businesses as discontinued operations, which we discuss further in Note 5. Our discussions in the Notes below relate only to our continuing operations unless otherwise noted.

Subsequent Events

We evaluated events and transactions that occurred after December 31, 2019 through the date the financial statements were issued, and in the opinion of management, the accompanying statements reflect all adjustments and disclosures necessary for a fair presentation.

EFFECTS OF REGULATION

The California Utilities' accounting policies and financial statements reflect the application of U.S. GAAP provisions governing rate-regulated operations and the policies of the CPUC and the FERC. Under these provisions, a regulated utility records regulatory assets, which are generally costs that would otherwise be charged to expense, if it is probable that, through the ratemaking process, the utility will recover those assets from customers. To the extent that recovery is no longer probable, the related regulatory assets are written off. Regulatory liabilities generally represent amounts collected from customers in advance of the actual expenditure by the utility. If the actual expenditures are less than amounts previously collected from ratepayers, the excess would be refunded to customers, generally by reducing future rates. Regulatory liabilities may also arise from other transactions such as unrealized gains on fixed price contracts and other derivatives or certain deferred income tax benefits that are passed through to customers in future rates. In addition, the California Utilities record regulatory liabilities when the CPUC or the FERC requires a refund to be made to customers or has required that a gain or other transaction of net allowable costs be given to customers over future periods.

Determining probability of recovery of regulatory assets requires significant judgment by management and may include, but is not limited to, consideration of:

- the nature of the event giving rise to the assessment
- existing statutes and regulatory code
- legal precedents
- regulatory principles and analogous regulatory actions
- testimony presented in regulatory hearings
- regulatory orders
- a commission-authorized mechanism established for the accumulation of costs
- status of applications for rehearings or state court appeals
- specific approval from a commission
- historical experience

Sempra Mexico's natural gas distribution utility, Ecogas, also applies U.S. GAAP for rate-regulated utilities to its operations, including the same evaluation of probability of recovery of regulatory assets described above.

We provide information concerning regulatory assets and liabilities in Note 4.

Our Sempra Texas Utilities segment is comprised of our equity method investments in Oncor Holdings, which, at December 31, 2019, owns an 80.25% interest in Oncor, and Sharyland Holdings, which owns 100% of Sharyland Utilities. Oncor and Sharyland Utilities are regulated electric transmission and distribution utilities in Texas and their rates are regulated by the PUCT and certain cities and are subject to regulatory rate-setting processes and annual earnings oversight. Oncor and Sharyland Utilities prepare their financial statements in accordance with the provisions of U.S. GAAP governing rate-regulated operations.

Our Sempra Mexico segment includes the operating companies of our subsidiary, IEnova, as well as certain holding companies and risk management activity. Certain business activities at IEnova are regulated by the CRE and meet the regulatory accounting requirements of U.S. GAAP. Pipeline projects currently under construction at IEnova that meet the regulatory accounting requirements of U.S. GAAP record the impact of AFUDC related to equity. We discuss AFUDC below in "Property, Plant and Equipment."

FAIR VALUE MEASUREMENTS

We measure certain assets and liabilities at fair value on a recurring basis, primarily nuclear decommissioning and benefit plan trust assets and derivatives. We also measure certain assets at fair value on a non-recurring basis in certain circumstances.

A fair value measurement reflects the assumptions market participants would use in pricing an asset or liability based on the best available information. These assumptions include the risk inherent in a particular valuation technique (such as a pricing model) and the risks inherent in the inputs to the model. Also, we consider an issuer's credit standing when measuring its liabilities at fair value.

We establish a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The three levels of the fair value hierarchy are as follows:

Level 1 – Pricing inputs are unadjusted quoted prices available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis. Our Level 1 financial instruments primarily consist of listed equities and U.S. government treasury securities, primarily in the NDT and benefit plan trusts, and exchange-traded derivatives.

Level 2 – Pricing inputs are other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date. Level 2 includes those financial instruments that are valued using models or other valuation methodologies. These models are primarily industry-standard models that consider various assumptions, including:

- quoted forward prices for commodities
- time value
- current market and contractual prices for the underlying instruments
- volatility factors
- other relevant economic measures

Substantially all of these assumptions are observable in the marketplace throughout the full term of the instrument and can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace. Our financial instruments in this category include listed equities, domestic corporate bonds, municipal bonds and other foreign bonds, primarily in the NDT and benefit plan trusts, and non-exchange-traded derivatives such as interest rate instruments and over-the-counter forwards and options.

Level 3 – Pricing inputs include significant inputs that are generally less observable from objective sources. These inputs may be used with internally developed methodologies that result in management's best estimate of fair value from the perspective of a market participant. Our Level 3 financial instruments consist of CRRs and fixed-price electricity positions at SDG&E.

CASH, CASH EQUIVALENTS AND RESTRICTED CASH

Cash equivalents are highly liquid investments with original maturities of three months or less at the date of purchase.

Restricted cash primarily includes:

- for SDG&E, funds held by a trustee for Otay Mesa VIE to pay certain operating costs until the deconsolidation of the VIE in August 2019; and
- for Semptra Mexico, funds primarily denominated in Mexican pesos to pay for rights-of-way, license fees, permits, topographic surveys and other costs pursuant to trust and debt agreements related to pipeline projects.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported on the Consolidated Balance Sheets to the sum of such amounts reported on the Consolidated Statements of Cash Flows.

RECONCILIATION OF CASH, CASH EQUIVALENTS AND RESTRICTED CASH*(Dollars in millions)*

	At December 31,	
	2019	2018
Sempra Energy Consolidated:		
Cash and cash equivalents	\$ 108	\$ 102
Restricted cash, current	31	35
Restricted cash, noncurrent	3	21
Cash, cash equivalents and restricted cash in discontinued operations	75	88
Total cash, cash equivalents and restricted cash on the Consolidated Statements of Cash Flows	\$ 217	\$ 246
SDG&E		
Cash and cash equivalents	\$ 10	\$ 8
Restricted cash, current	—	11
Restricted cash, noncurrent	—	18
Total cash, cash equivalents and restricted cash on the Consolidated Statements of Cash Flows	\$ 10	\$ 37

COLLECTION ALLOWANCES

We record allowances for the collection of trade and other accounts and notes receivable, which include allowances for doubtful customer accounts and for other receivables. We show the changes in these allowances in the table below:

COLLECTION ALLOWANCES*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Allowances for collection of receivables at January 1	\$ 21	\$ 25	\$ 29
Provisions for uncollectible accounts	22	10	12
Write-offs of uncollectible accounts	(14)	(14)	(16)
Allowances for collection of receivables at December 31	\$ 29	\$ 21	\$ 25
SDG&E			
Allowances for collection of receivables at January 1	\$ 11	\$ 9	\$ 8
Provisions for uncollectible accounts	10	9	8
Write-offs of uncollectible accounts	(7)	(7)	(7)
Allowances for collection of receivables at December 31	\$ 14	\$ 11	\$ 9
SoCalGas:			
Allowances for collection of receivables at January 1	\$ 10	\$ 16	\$ 21
Provisions for uncollectible accounts	12	1	4
Write-offs of uncollectible accounts	(7)	(7)	(9)
Allowances for collection of receivables at December 31	\$ 15	\$ 10	\$ 16

We evaluate accounts receivable collectability using a combination of factors, including past due status based on contractual terms, trends in write-offs, the age of the receivable, counterparty creditworthiness, economic conditions and specific events, such as bankruptcies. Adjustments to collection allowances are made when necessary based on the results of analysis, the aging of receivables, and historical and industry trends.

We write off accounts receivable in the period in which we deem the receivable to be uncollectible. We record recoveries of accounts receivable previously written off when it is known that they will be received.

CONCENTRATION OF CREDIT RISK

Credit risk is the risk of loss that would be incurred as a result of nonperformance by our counterparties on their contractual obligations. We have policies governing the management of credit risk that are administered by the respective credit departments for each of the California Utilities and, on a combined basis, for all non-CPUC regulated affiliates and overseen by their separate risk management committees.

This oversight includes calculating current and potential credit risk on a daily basis and monitoring actual balances in comparison to approved limits. We establish credit limits based on risk and return considerations under terms customarily available in the industry. We avoid concentration of counterparties whenever possible, and we believe our credit policies significantly reduce overall credit risk. These policies include an evaluation of:

- prospective counterparties' financial condition (including credit ratings)
- collateral requirements
- the use of standardized agreements that allow for the netting of positive and negative exposures associated with a single counterparty
- downgrade triggers

We believe that we have provided adequate reserves for counterparty nonperformance.

When our development projects become operational, we rely significantly on the ability of suppliers to perform under long-term agreements and on our ability to enforce contract terms in the event of nonperformance. Also, the factors that we consider in evaluating a development project include negotiating customer and supplier agreements and, therefore, we rely on these agreements for future performance. We also may condition our decision to go forward on development projects on first obtaining these customer and supplier agreements.

INVENTORIES

The California Utilities value natural gas inventory using the LIFO method. As inventories are sold, differences between the LIFO valuation and the estimated replacement cost are reflected in customer rates. These differences are generally temporary, but may become permanent if the natural gas inventory withdrawn from storage during the year is not replaced by year end. The California Utilities generally value materials and supplies at the lower of average cost or net realizable value.

Sempra Mexico and Sempra LNG value natural gas inventory and materials and supplies at the lower of average cost or net realizable value. Sempra Mexico and Sempra LNG value LNG inventory using the first-in first-out method.

The components of inventories are as follows:

INVENTORY BALANCES AT DECEMBER 31

(Dollars in millions)

	Natural gas		LNG		Materials and supplies		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Sempra Energy Consolidated	\$ 110	\$ 95	\$ 9	\$ 4	\$ 158	\$ 159	\$ 277	\$ 258
SDG&E	1	—	—	—	93	102	94	102
SoCalGas	90	92	—	—	46	42	136	134

WILDFIRE FUND

On July 12, 2019, the Wildfire Legislation was signed into law. The Wildfire Legislation addresses certain issues related to catastrophic wildfires in the State of California and their impact on electric IOUs. Investor-owned gas distribution utilities such as SoCalGas are not covered by this legislation. The issues addressed include wildfire mitigation, cost recovery standards and requirements, a wildfire fund, a cap on liability, and the establishment of a wildfire safety board.

The Wildfire Legislation requires SDG&E to install at least \$215 million of fire risk mitigation capital improvements, which will be the first \$215 million of capital included in its wildfire mitigation plan, and recover its financing costs without a ROE.

The Wildfire Legislation established a revised legal standard for the recovery of wildfire costs (Revised Prudent Manager Standard) and established a fund (the Wildfire Fund) to provide liquidity to SDG&E, PG&E and Edison to pay IOU wildfire-related claims in the event that the governmental agency responsible for determining causation determines the applicable IOU's equipment caused the ignition of a wildfire, the primary insurance coverage is exceeded and certain other conditions are satisfied. The primary purpose of the Wildfire Fund is to pool resources provided by shareholders and ratepayers of the IOUs and make those resources available to reimburse the IOUs for third-party wildfire claims incurred after July 12, 2019, the effective date of the Wildfire Legislation, subject to certain limitations.

An IOU may seek payment from the Wildfire Fund for settled or adjudicated third-party damage claims arising from certain wildfires that exceed, in aggregate in a calendar year, the greater of \$1 billion or the IOU's required amount of insurance coverage as recommended by the Wildfire Fund's administrator. Wildfire claims approved by the Wildfire Fund's administrator will be paid

by the Wildfire Fund to the IOU to the extent funds are available. These utilized funds will be subject to review by the CPUC, which will make a determination as to the degree an IOU's conduct related to an ignition of a wildfire was prudent or imprudent. The Revised Prudent Manager Standard requires that the CPUC apply clear standards when reviewing wildfire liability losses paid when determining the reasonableness of an IOU's conduct related to an ignition. Under this standard, the conduct under review related to the ignition may include factors within and beyond the IOU's control, including humidity, temperature and winds. Costs and expenses may be allocated for cost recovery in full or in part. Also, under this standard, an IOU's conduct will be deemed reasonable if a valid annual safety certification is in place at the time of the ignition, unless a serious doubt is raised, in which case the burden shifts to the utility to dispel that doubt. The IOUs will receive an annual safety certification from the CPUC if they meet various requirements.

If an IOU has maintained a valid annual safety certification, to the extent it is found to be imprudent, claims will be reimbursable by the IOU to the Wildfire Fund up to a cap based on the IOU's rate base. The aggregate requirement to reimburse the Wildfire Fund over a trailing three calendar year period is capped at 20% of the equity portion of an IOU's electric transmission and distribution rate base in the year of the prudency determination. SDG&E received its annual safety certification from the CPUC on July 26, 2019, which is valid for 12 months. Based on its 2019 rate base, the liability cap for SDG&E is approximately \$900 million, which will be adjusted annually. The liability cap will apply on a rolling three-year basis so long as future annual safety certifications are received and the Wildfire Fund has not been terminated, which could occur if funds are exhausted. Amounts in excess of the liability cap and amounts that are determined to be prudently incurred do not need to be reimbursed by an IOU to the Wildfire Fund. The Wildfire Fund does not have a specified term and coverage will continue until the assets of the Wildfire Fund are exhausted and the Wildfire Fund is terminated, in which case, the remaining funds will be transferred to California's general fund to be used for fire risk mitigation programs.

The Wildfire Fund could initially be funded up to \$10.5 billion by a loan from the State of California Surplus Money Investment Fund. Such lending will subsequently be financed through an anticipated DWR bond, securitized through a dedicated surcharge on ratepayers' bills attributable to the DWR. In October 2019, the CPUC adopted a decision authorizing a non-bypassable charge to be collected by the IOUs to support the anticipated DWR bond issuance authorized by AB 1054. The CPUC decision also determined that ratepayers of non-participating electrical corporations shall not pay the non-bypassable charge. PG&E has agreed to participate in the Wildfire Fund, subject to bankruptcy court approval. Accordingly, if PG&E is unable to participate in the Wildfire Fund, its customers will not pay the non-bypassable charge, resulting in significantly lower Wildfire Fund contributions from ratepayers than the anticipated \$10.5 billion.

The Wildfire Fund could also be funded by up to \$7.5 billion in initial shareholder contributions from the IOUs (SDG&E's share is \$322.5 million, PG&E's share is \$4.8 billion and Edison's share is \$2.4 billion). The IOUs could also be required to make annual shareholder contributions to the Wildfire Fund with an aggregate value of \$3 billion over a 10-year period (SDG&E's share is \$129 million, PG&E's share is \$1.9 billion and Edison's share is \$945 million). If PG&E is unable to participate in the Wildfire Fund, SDG&E's and Edison's aggregate shareholder contributions to the Wildfire Fund will not change and are expected to total approximately \$3.8 billion. When estimating the period of benefit of the Wildfire Fund asset that we discuss below, we assume PG&E will participate in the Wildfire Fund. The contributions are not subject to rate recovery.

SDG&E paid its initial shareholder contribution of \$322.5 million to the Wildfire Fund in September 2019. SDG&E funded this contribution with proceeds from an equity contribution from Sempra Energy. Sempra Energy funded the equity contribution to SDG&E with proceeds from settling forward sale agreements through physical delivery of shares of Sempra Energy common stock in exchange for cash, which we discuss in Note 14. Edison paid its initial shareholder contribution in September 2019.

In a complaint filed in U.S. District Court for the Northern District of California in July 2019, plaintiffs seek to invalidate AB 1054 based on allegations that the legislation violates federal law. The California Attorney General has moved to dismiss the complaint.

Wildfire Fund Asset

SDG&E recorded a Wildfire Fund asset for its commitment to make shareholder contributions totaling \$451.5 million, measured at present value as of July 25, 2019 (the date by which both Edison and SDG&E opted to contribute to the Wildfire Fund). SDG&E is amortizing the Wildfire Fund asset to O&M on a straight-line basis over the estimated period of benefit, as adjusted for utilization by the IOUs. The estimated period of benefit of the Wildfire Fund asset, which is 15 years as of December 31, 2019, is based on several assumptions, including, but not limited to:

- historical wildfire experience of each IOU in the State of California, including frequency and severity of the wildfires
- the value of property potentially damaged by wildfires
- the effectiveness of wildfire risk mitigation efforts by each IOU
- liability cap of each IOU

- IOU prudence determination levels
- FERC jurisdictional allocation levels
- insurance coverage levels

The use of different assumptions, or changes to the assumptions used, could have a significant impact on the estimated period of benefit of the Wildfire Fund asset.

We will periodically reevaluate the estimated period of benefit of the Wildfire Fund asset based on actual experience and changes in the above assumptions. SDG&E may recognize a reduction of its Wildfire Fund asset and record a charge against earnings in the period when there is a reduction of the available coverage due to recoverable claims from the IOUs. The reduction to the Wildfire Fund asset may be proportionate to the Wildfire Fund's consumption (i.e., recoveries for outstanding wildfire claims that are recoverable from the Wildfire Fund, net of anticipated or actual reimbursement to the Wildfire Fund by the responsible IOU, would decrease the Wildfire Fund asset and remaining available coverage). At December 31, 2019, there were no such known claims from the IOUs requiring a reduction of the Wildfire Fund asset.

At December 31, 2019, the current portion of the Wildfire Fund asset was \$29 million in Other Current Assets on Sempra Energy's Consolidated Balance Sheet and in Prepaid Expenses on SDG&E's Consolidated Balance Sheet, and the noncurrent portion of \$392 million was in Wildfire Fund on Sempra Energy's and SDG&E's Consolidated Balance Sheets.

Wildfire Fund Obligation

SDG&E recorded a Wildfire Fund obligation for its commitment to make shareholder contributions totaling \$451.5 million, measured at present value as of July 25, 2019 (the date by which both Edison and SDG&E opted to contribute to the Wildfire Fund). SDG&E paid its initial shareholder contribution of \$322.5 million to the Wildfire Fund in September 2019 and its first annual shareholder contribution of \$12.9 million in December 2019. At December 31, 2019, SDG&E expects to make annual shareholder contributions of \$12.9 million in each of the next nine years. SDG&E accretes the present value of the Wildfire Fund obligation to O&M until the liability is settled.

At December 31, 2019, the Wildfire Fund obligation was \$12.9 million in Other Current Liabilities and \$86 million in Deferred Credits and Other on Sempra Energy's and SDG&E's Consolidated Balance Sheets.

INCOME TAXES

Income tax expense includes current and deferred income taxes. We record deferred income taxes for temporary differences between the book and the tax basis of assets and liabilities. ITCs from prior years are amortized to income by the California Utilities over the estimated service lives of the properties as required by the CPUC.

Under the regulatory accounting treatment required for flow-through temporary differences, the California Utilities and Sempra Mexico recognize:

- regulatory assets to offset deferred income tax liabilities if it is probable that the amounts will be recovered from customers; and
- regulatory liabilities to offset deferred income tax assets if it is probable that the amounts will be returned to customers.

When there are uncertainties related to potential income tax benefits, in order to qualify for recognition, the position we take has to have at least a more-likely-than-not chance of being sustained (based on the position's technical merits) upon challenge by the respective authorities. The term "more-likely-than-not" means a likelihood of more than 50%. Otherwise, we may not recognize any of the potential tax benefit associated with the position. We recognize a benefit for a tax position that meets the more-likely-than-not criterion at the largest amount of tax benefit that is greater than 50% likely of being realized upon its effective resolution.

Unrecognized income tax benefits involve management's judgment regarding the likelihood of the benefit being sustained. The final resolution of uncertain tax positions could result in adjustments to recorded amounts and may affect our ETR.

In December 2017, the TCJA was signed into law. As a result, all cumulative undistributed earnings from non-U.S. subsidiaries were deemed repatriated and subjected to a one-time U.S. federal deemed repatriation tax. To the extent we intend to repatriate cash to the U.S. from our continuing international operations, we accrue incremental income tax. We currently do not record deferred income taxes for other basis differences between financial statement and income tax investment amounts in non-U.S. subsidiaries to the extent the related cumulative undistributed earnings are indefinitely reinvested. We recognize income tax expense for basis differences related to global intangible low-taxed income as a period cost if and when incurred.

We provide additional information about income taxes in Note 8.

GREENHOUSE GAS ALLOWANCES AND OBLIGATIONS

The California Utilities, Sempra Mexico and Sempra LNG are required by AB 32 to acquire GHG allowances for every metric ton of carbon dioxide equivalent emitted into the atmosphere during electric generation and natural gas transportation. At the California Utilities, many GHG allowances are allocated to us on behalf of our customers at no cost. We record purchased and allocated GHG allowances at the lower of weighted-average cost or market. We measure the compliance obligation, which is based on emissions, at the carrying value of allowances held plus the fair value of additional allowances necessary to satisfy the obligation. The California Utilities balance costs and revenues associated with the GHG program through regulatory balancing accounts. Sempra Mexico and Sempra LNG record the cost of GHG obligations in cost of sales. We remove the assets and liabilities from the balance sheets as the allowances are surrendered.

RENEWABLE ENERGY CERTIFICATES

RECs are energy rights established by governmental agencies for the environmental and social promotion of renewable electricity generation. A REC, and its associated attributes and benefits, can be sold separately from the underlying physical electricity associated with a renewable-based generation source in certain markets.

Retail sellers of electricity obtain RECs through renewable energy PPAs, internal generation or separate purchases in the market to comply with the RPS established by the governmental agencies. RECs provide documentation for the generation of a unit of renewable energy that is used to verify compliance with the RPS. The cost of RECs at SDG&E, which is recoverable in rates, is recorded in Cost of Electric Fuel and Purchased Power on the Consolidated Statements of Operations.

PROPERTY, PLANT AND EQUIPMENT

PP&E is recorded at cost and primarily represents the buildings, equipment and other facilities used by the California Utilities to provide natural gas and electric utility services, and by the Sempra Global businesses in their operations, including construction work in progress. PP&E also includes lease improvements and other equipment at Parent and Other. Our plant costs include labor, materials and contract services and expenditures for replacement parts incurred during a major maintenance outage of a plant. In addition, the cost of utility plant at our rate-regulated businesses and PP&E under regulated projects that meet the regulatory accounting requirements of U.S. GAAP includes AFUDC. The cost of other PP&E includes capitalized interest. Maintenance costs are expensed as incurred. The cost of most retired depreciable utility plant assets less salvage value is charged to accumulated depreciation.

We discuss assets collateralized as security for certain indebtedness in Note 7.

PROPERTY, PLANT AND EQUIPMENT BY MAJOR FUNCTIONAL CATEGORY
(Dollars in millions)

	December 31,		Depreciation rates for years ended December 31,		
	2019	2018	2019	2018	2017
SDG&E					
Natural gas operations	\$ 2,534	\$ 2,382	2.47%	2.44%	2.40%
Electric distribution	7,985	7,462	3.94	3.91	3.92
Electric transmission ⁽¹⁾	6,577	6,222	2.79	2.76	2.71
Electric generation ⁽²⁾	2,415	2,967	4.50	4.12	4.05
Other electric ⁽³⁾	1,492	1,408	6.61	6.43	5.54
Construction work in progress ⁽¹⁾	1,501	1,221	NA	NA	NA
Total SDG&E	22,504	21,662			
SoCalGas:					
Natural gas operations ⁽⁴⁾	18,370	17,268	3.60	3.60	3.63
Other non-utility	34	34	5.08	5.39	5.28
Construction work in progress	958	836	NA	NA	NA
Total SoCalGas	19,362	18,138			
Other operating units and parent^{(5):}					
			Estimated useful lives	Weighted-average useful life	
Land and land rights	278	326	16 to 50 years ⁽⁶⁾	31	
Machinery and equipment:					
Generating plants	1,154	869	15 to 20 years	18	
LNG terminals	1,134	1,134	43 years	43	
Pipelines and storage	3,596	3,413	5 to 50 years	41	
Other	180	183	1 to 50 years	6	
Construction work in progress	895	451	NA	NA	
Other ⁽⁷⁾	226	439	3 to 50 years	15	
	7,463	6,815			
Total Sempra Energy Consolidated	\$ 49,329	\$ 46,615			

⁽¹⁾ At December 31, 2019, includes \$484 million in electric transmission assets and \$13 million in construction work in progress related to SDG&E's 90% interest in the Southwest Powerlink transmission line, jointly owned by SDG&E with other utilities. SDG&E, and each of the other owners, holds its undivided interest as a tenant in common in the property. Each owner is responsible for its share of the project and participates in decisions concerning operations and capital expenditures. SDG&E's share of operating expenses is included in Sempra Energy's and SDG&E's Consolidated Statements of Operations.

⁽²⁾ Includes capital lease assets of \$1.3 billion at December 31, 2018.

⁽³⁾ Includes capital lease assets of \$13 million at December 31, 2018.

⁽⁴⁾ Includes capital lease assets of \$40 million at December 31, 2018.

⁽⁵⁾ Includes \$178 million and \$154 million at December 31, 2019 and 2018, respectively, of utility plant, primarily pipelines and other distribution assets at Ecogas.

⁽⁶⁾ Estimated useful lives are for land rights.

⁽⁷⁾ Includes capital lease assets of \$136 million and associated leasehold improvements of \$24 million at December 31, 2018 related to our corporate headquarters build-to-suit arrangement, which is accounted for as a ROU asset as of January 1, 2019 upon adoption of the lease standard.

Depreciation expense is computed using the straight-line method over the asset's estimated composite useful life, the CPUC-prescribed period for the California Utilities, or the remaining term of the site leases, whichever is shortest.

DEPRECIATION EXPENSE
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated	\$ 1,551	\$ 1,470	\$ 1,368
SDG&E	757	686	621
SoCalGas	598	553	514

ACCUMULATED DEPRECIATION*(Dollars in millions)*

	December 31,	
	2019	2018
SDG&E		
Accumulated depreciation:		
Electric ⁽¹⁾	\$ 4,705	\$ 4,558
Natural gas	832	794
Total SDG&E	5,537	5,352
SoCalGas:		
Accumulated depreciation of natural gas utility plant in service ⁽²⁾	6,023	5,685
Accumulated depreciation – other non-utility	15	14
Total SoCalGas	6,038	5,699
Other operating units and parent and other:		
Accumulated depreciation – other ⁽³⁾	1,302	1,125
Total Sempra Energy Consolidated	\$ 12,877	\$ 12,176

⁽¹⁾ Includes accumulated depreciation for capital lease assets of \$48 million at December 31, 2018. Includes \$263 million at December 31, 2019 related to SDG&E's 90% interest in the Southwest Powerlink transmission line, jointly owned by SDG&E and other utilities.

⁽²⁾ Includes accumulated depreciation for capital lease assets of \$37 million at December 31, 2018.

⁽³⁾ Includes accumulated depreciation for capital lease assets of \$10 million and associated leasehold improvements of \$3 million at December 31, 2018 related to our corporate headquarters' build-to-suit arrangement, which is accounted for as a ROU asset as of January 1, 2019. Includes \$49 million and \$43 million at December 31, 2019 and 2018, respectively, of accumulated depreciation for utility plant at Ecogas.

The California Utilities finance their construction projects with debt and equity funds. The CPUC and the FERC allow the recovery of the cost of these funds by the capitalization of AFUDC, calculated using rates authorized by the CPUC and the FERC, as a cost component of PP&E. The California Utilities earn a return on the capitalized AFUDC after the utility property is placed in service and recover the AFUDC from their customers over the expected useful lives of the assets.

Pipeline projects currently under construction by Sempra Mexico that are both subject to certain regulation and meet U.S. GAAP regulatory accounting requirements record the impact of AFUDC.

We capitalize interest costs incurred to finance capital projects and interest at equity method investments that have not commenced planned principal operations.

The table below summarizes capitalized interest and AFUDC.

CAPITALIZED FINANCING COSTS*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated	\$ 183	\$ 193	\$ 247
SDG&E	75	82	85
SoCalGas	47	48	60

GOODWILL AND OTHER INTANGIBLE ASSETS**Goodwill**

Goodwill is the excess of the purchase price over the fair value of the identifiable net assets of acquired companies measured at the time of acquisition. Goodwill is not amortized, but we test it for impairment annually on October 1 or whenever events or changes in circumstances necessitate an evaluation. If the carrying value of the reporting unit, including goodwill, exceeds its fair value, and the book value of goodwill is greater than its fair value on the test date, we record a goodwill impairment loss.

For our annual goodwill impairment testing, under current U.S. GAAP guidance we have the option to first make a qualitative assessment of whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount before applying the two-step, quantitative goodwill impairment test. If we elect to perform the qualitative assessment, we evaluate relevant events and circumstances, including but not limited to, macroeconomic conditions, industry and market considerations, cost factors, changes in key personnel and the overall financial performance of the reporting unit. If, after assessing these

qualitative factors, we determine that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then we perform the two-step goodwill impairment test. When we perform the two-step, quantitative goodwill impairment test, we exercise judgment to develop estimates of the fair value of the reporting unit and the corresponding goodwill. Our fair value estimates are developed from the perspective of a knowledgeable market participant. We consider observable transactions in the marketplace for similar investments, if available, as well as an income-based approach such as discounted cash flow analysis. A discounted cash flow analysis may be based directly on anticipated future revenues and expenses and may be performed based on free cash flows generated within the reporting unit. Critical assumptions that affect our estimates of fair value may include:

- consideration of market transactions
- future cash flows
- the appropriate risk-adjusted discount rate
- country risk
- entity risk

Goodwill of \$1,602 million at December 31, 2019 and 2018 relates to the 2016 acquisitions of IEnova Pipelines and Ventika wind power generation facilities at Sempra Mexico.

Other Intangible Assets

Other Intangible Assets included on the Sempra Energy Consolidated Balance Sheets are as follows:

OTHER INTANGIBLE ASSETS

(Dollars in millions)

	Amortization period (years)	December 31,	
		2019	2018
Renewable energy transmission and consumption permit	19	\$ 154	\$ 154
O&M agreement	23	66	66
Other	10 years to indefinite	30	30
		250	250
Less accumulated amortization:			
Renewable energy transmission and consumption permit		(24)	(16)
O&M agreement		(6)	(3)
Other		(7)	(7)
		(37)	(26)
		\$ 213	\$ 224

Other Intangible Assets at December 31, 2019 primarily includes:

- a renewable energy transmission and consumption permit previously granted by the CRE that was acquired in connection with the acquisition of the Ventika wind power generation facilities; and
- a favorable O&M agreement acquired in connection with the acquisition of DEN, which we discuss in Note 5.

Intangible assets subject to amortization are amortized over their estimated useful lives. Amortization expense for intangible assets in 2019, 2018 and 2017 was \$11 million, \$16 million and \$18 million, respectively. We estimate the amortization expense for the next five years to be \$12 million per year.

LONG-LIVED ASSETS

We test long-lived assets for recoverability whenever events or changes in circumstances have occurred that may affect the recoverability or the estimated useful lives of long-lived assets. Long-lived assets include intangible assets subject to amortization, but do not include investments in unconsolidated entities. Events or changes in circumstances that indicate that the carrying amount of a long-lived asset may not be recoverable may include:

- significant decreases in the market price of an asset;
- a significant adverse change in the extent or manner in which we use an asset or in its physical condition;
- a significant adverse change in legal or regulatory factors or in the business climate that could affect the value of an asset;

- a current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection of continuing losses associated with the use of a long-lived asset; and
- a current expectation that, more-likely-than-not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated useful life.

A long-lived asset may be impaired when the estimated future undiscounted cash flows are less than the carrying amount of the asset. If that comparison indicates that the asset's carrying value may not be recoverable, the impairment is measured based on the difference between the carrying amount and the fair value of the asset. This evaluation is performed at the lowest level for which separately identifiable cash flows exist.

VARIABLE INTEREST ENTITIES

We consolidate a VIE if we are the primary beneficiary of the VIE. Our determination of whether we are the primary beneficiary is based on qualitative and quantitative analyses, which assess:

- the purpose and design of the VIE;
- the nature of the VIE's risks and the risks we absorb;
- the power to direct activities that most significantly impact the economic performance of the VIE; and
- the obligation to absorb losses or the right to receive benefits that could be significant to the VIE.

We will continue to evaluate our VIEs for any changes that may impact our determination of whether an entity is a VIE and if we are the primary beneficiary.

SDG&E

SDG&E's power procurement is subject to reliability requirements that may require SDG&E to enter into various PPAs that include variable interests. SDG&E evaluates the respective entities to determine if variable interests exist and, based on the qualitative and quantitative analyses described above, if SDG&E, and thereby Sempra Energy, is the primary beneficiary.

Tolling Agreements

SDG&E has agreements under which it purchases power generated by facilities for which it supplies all of the natural gas to fuel the power plant (i.e., tolling agreements). SDG&E's obligation to absorb natural gas costs may be a significant variable interest. In addition, SDG&E has the power to direct the dispatch of electricity generated by these facilities. Based on our analysis, the ability to direct the dispatch of electricity may have the most significant impact on the economic performance of the entity owning the generating facility because of the associated exposure to the cost of natural gas, which fuels the plants, and the value of electricity produced. To the extent that SDG&E (1) is obligated to purchase and provide fuel to operate the facility, (2) has the power to direct the dispatch, and (3) purchases all of the output from the facility for a substantial portion of the facility's useful life, SDG&E may be the primary beneficiary of the entity owning the generating facility. SDG&E determines if it is the primary beneficiary in these cases based on a qualitative approach in which we consider the operational characteristics of the facility, including its expected power generation output relative to its capacity to generate and the financial structure of the entity, among other factors. If we determine that SDG&E is the primary beneficiary, SDG&E and Sempra Energy consolidate the entity that owns the facility as a VIE.

SDG&E determined that none of its contracts resulted in SDG&E being the primary beneficiary of a VIE at December 31, 2019. In addition to tolling agreements, other variable interests involve various elements of fuel and power costs, and other components of cash flows expected to be paid to or received by our counterparties. In most of these cases, the expectation of variability is not substantial, and SDG&E generally does not have the power to direct activities that most significantly impact the economic performance of the other VIEs. If our ongoing evaluation of these VIEs were to conclude that SDG&E becomes the primary beneficiary and consolidation by SDG&E becomes necessary, the effects could be significant to the financial position and liquidity of SDG&E and Sempra Energy. We provide additional information about PPAs with power plant facilities that are VIEs of which SDG&E is not the primary beneficiary in Note 16.

Otay Mesa VIE

Through October 3, 2019, SDG&E had a tolling agreement to purchase power generated at OMEC, a 605-MW generating facility owned by OMEC LLC, which is a VIE that we refer to as Otay Mesa VIE. Under the terms of a related agreement, OMEC LLC could have required SDG&E to purchase the power plant (referred to as the put option) on or before October 3, 2019 for \$280 million, subject to adjustments, or upon earlier termination of the PPA. SDG&E determined that it was the primary beneficiary of Otay Mesa VIE, and therefore, SDG&E and Sempra Energy consolidated Otay Mesa VIE.

In October 2018, SDG&E and OMEC LLC signed a resource adequacy capacity agreement for a term that would commence at the expiration of the current tolling agreement in October 2019 and end in August 2024. The capacity agreement was approved by OMEC LLC's lenders and the CPUC in December 2018 and February 2019, respectively. However, given certain then pending requests for rehearing of the CPUC's decision approving the capacity agreement, on March 28, 2019, OMEC LLC exercised the put option requiring SDG&E to purchase the power plant. On August 6, 2019, the CPUC denied the rehearing requests, and on August 23, 2019, SDG&E and OMEC LLC executed an amended resource adequacy capacity agreement that irrevocably rescinded exercise of the put option. SDG&E and Sempra Energy deconsolidated Otay Mesa VIE on August 23, 2019. No gain or loss was recognized upon deconsolidation.

Prior to deconsolidation, on August 14, 2019, OMEC LLC paid in full its variable-rate loan that was scheduled to mature in August 2024, which we describe in Note 7.

Otay Mesa VIE's equity of \$100 million at December 31, 2018 is included on the Consolidated Balance Sheets in Other Noncontrolling Interests for Sempra Energy and in Noncontrolling Interest for SDG&E.

The following table summarizes the deconsolidation:

DECONSOLIDATION OF OTAY MESA VIE

(Dollars in millions)

	August 23, 2019
Cash and cash equivalents	\$ 8
Accounts receivable, net	11
Inventories	4
Total current assets	23
Property, plant and equipment, net	272
Other noncurrent assets	27
Total assets	\$ 322
Accounts payable	\$ 10
Other current liabilities	2
Total current liabilities	12
Asset retirement obligations	2
Deferred credits and other	27
Total deferred credits and other liabilities	29
Noncontrolling interest	281
Total liabilities and equity	\$ 322

Sempra Texas Utilities

On March 9, 2018, we completed the acquisition of an indirect, 100% interest in Oncor Holdings, a VIE that, at December 31, 2019, owns an 80.25% interest in Oncor. Sempra Energy is not the primary beneficiary of the VIE because of the structural and operational ring-fencing and governance measures in place that prevent us from having the power to direct the significant activities of Oncor Holdings. As a result, we do not consolidate Oncor Holdings and instead account for our ownership interest as an equity method investment. See Notes 5 and 6 for additional information about our equity method investment in Oncor Holdings and restrictions on our ability to influence its activities. Our maximum exposure to loss, which fluctuates over time, from our interest in Oncor Holdings does not exceed the carrying value of our investment, which was \$11,519 million at December 31, 2019 and \$9,652 million at December 31, 2018.

Sempra Mexico

Sempra Mexico's businesses also enter into arrangements that could include variable interests. We evaluate these arrangements

and applicable entities based on the qualitative and quantitative analyses described above. Certain of these entities are service or project companies that are VIEs because the total equity at risk is not sufficient for the entities to finance their activities without additional subordinated financial support. As the primary beneficiary of these companies, we consolidate them. The assets of these VIEs totaled approximately \$126 million at December 31, 2019 and \$286 million at December 31, 2018 and consisted primarily of PP&E and other long-term assets. Our maximum exposure to loss is equal to the carrying value of these assets.

Sempra Renewables

Certain of Sempra Renewables' wind and solar power generation projects were held by limited liability companies whose members were Sempra Renewables and financial institutions. The financial institutions were noncontrolling tax equity investors to which earnings, tax attributes and cash flows were allocated in accordance with the respective limited liability company agreements. These entities were VIEs and Sempra Energy was the primary beneficiary, generally due to Sempra Energy's power as the operator of the renewable energy projects to direct the activities that most significantly impacted the economic performance of these VIEs. As the primary beneficiary of these tax equity limited liability companies, we consolidated them. We sold the solar entities in December 2018 and summarize the impact of the deconsolidation of these solar and other Sempra Renewables entities in Note 5. We sold the wind entities in April 2019. At December 31, 2018, Sempra Energy's Consolidated Balance Sheet includes \$301 million in Assets Held for Sale, \$9 million in Liabilities Held for Sale, and equity of \$158 million in Other Noncontrolling Interests associated with these wind entities.

Sempra LNG

Cameron LNG JV is a VIE principally due to contractual provisions that transfer certain risks to customers. Sempra Energy is not the primary beneficiary of the VIE because we do not have the power to direct the most significant activities of Cameron LNG JV, and therefore we account for our investment in Cameron LNG JV under the equity method. The carrying value of our investment, including amounts recognized in AOCI related to interest-rate cash flow hedges at Cameron LNG JV, was \$1,256 million at December 31, 2019 and \$1,271 million at December 31, 2018. Our maximum exposure to loss, which fluctuates over time, includes the carrying value of our investment and guarantees that we discuss in Note 6.

ASSET RETIREMENT OBLIGATIONS

For tangible long-lived assets, we record AROs for the present value of liabilities of future costs expected to be incurred when assets are retired from service, if the retirement process is legally required and if a reasonable estimate of fair value can be made. We also record a liability if a legal obligation to perform an asset retirement exists and can be reasonably estimated, but performance is conditional upon a future event. We record the estimated retirement cost over the life of the related asset by depreciating the asset retirement cost (measured as the present value of the obligation at the time the asset is placed into service), and accreting the obligation until the liability is settled. Our rate-regulated entities, including the California Utilities, record regulatory assets or liabilities as a result of the timing difference between the recognition of costs in accordance with U.S. GAAP and costs recovered through the rate-making process.

We have recorded AROs related to various assets, including:

SDG&E and SoCalGas

- fuel and storage tanks
- natural gas transmission and distribution systems
- hazardous waste storage facilities
- asbestos-containing construction materials

SDG&E

- nuclear power facilities
- electric transmission and distribution systems
- energy storage systems
- power generation plants

SoCalGas

- underground natural gas storage facilities and wells

All Other Sempra Energy Businesses

- natural gas transportation and distribution systems
- power generation plants
- LNG facility
- LPG terminal

The changes in ARO are as follows:

CHANGES IN ASSET RETIREMENT OBLIGATIONS

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	2019	2018	2019	2018	2019	2018
Balance as of January 1 ⁽¹⁾	\$ 2,972	\$ 2,876	\$ 874	\$ 839	\$ 2,063	\$ 1,953
Accretion expense	123	121	39	39	81	78
Liabilities incurred	2	7	—	—	—	—
Deconsolidation and reclassification ⁽²⁾	(2)	(61)	(2)	—	—	—
Payments	(46)	(42)	(44)	(39)	(2)	(3)
Revisions	34	71	(1)	35	35	35
Balance at December 31 ⁽¹⁾	\$ 3,083	\$ 2,972	\$ 866	\$ 874	\$ 2,177	\$ 2,063

⁽¹⁾ Current portion of the ARO for Sempra Energy Consolidated is included in Other Current Liabilities on the Consolidated Balance Sheets.

⁽²⁾ In 2018, we reclassified \$6 million at Sempra Renewables and \$8 million at Sempra LNG to liabilities held for sale, and \$5 million related to TdM from liabilities held for sale, and deconsolidated \$52 million at Sempra Renewables, as we discuss in Note 5. Liabilities held for sale are included in Other Current Liabilities on the Sempra Energy Consolidated Balance Sheets.

CONTINGENCIES

We accrue losses for the estimated impacts of various conditions, situations or circumstances involving uncertain outcomes. For loss contingencies, we accrue the loss if an event has occurred on or before the balance sheet date and:

- information available through the date we file our financial statements indicates it is probable that a loss has been incurred, given the likelihood of uncertain future events; and
- the amount of the loss can be reasonably estimated.

We do not accrue contingencies that might result in gains. We continuously assess contingencies for litigation claims, environmental remediation and other events.

LEGAL FEES

Legal fees that are associated with a past event for which a liability has been recorded are accrued when it is probable that fees also will be incurred and amounts are estimable.

COMPREHENSIVE INCOME

Comprehensive income includes all changes in the equity of a business enterprise (except those resulting from investments by owners and distributions to owners), including:

- foreign currency translation adjustments
- certain hedging activities
- changes in unamortized net actuarial gain or loss and prior service cost related to pension and other postretirement benefits plans
- unrealized gains or losses on available-for-sale securities

The Consolidated Statements of Comprehensive Income (Loss) show the changes in the components of OCI, including the amounts attributable to NCI. The following tables present the changes in AOCI by component and amounts reclassified out of AOCI to net income, excluding amounts attributable to NCI:

CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) BY COMPONENT⁽¹⁾
(Dollars in millions)

	Foreign currency translation adjustments	Financial instruments	Pension and other postretirement benefits	Total accumulated other comprehensive income (loss)
Sempra Energy Consolidated⁽²⁾:				
Balance as of December 31, 2016	\$ (527)	\$ (125)	\$ (96)	\$ (748)
OCI before reclassifications	107	(4)	—	103
Amounts reclassified from AOCI	—	7	12	19
Net OCI	107	3	12	122
Balance as of December 31, 2017	(420)	(122)	(84)	(626)
Cumulative-effect adjustment from change in accounting principle	—	(3)	—	(3)
OCI before reclassifications	(144)	40	(52)	(156)
Amounts reclassified from AOCI	—	3	18	21
Net OCI	(144)	43	(34)	(135)
Balance as of December 31, 2018	(564)	(82)	(118)	(764)
Cumulative-effect adjustment from change in accounting principle	—	(25)	(17)	(42)
OCI before reclassifications ⁽³⁾	(43)	(116)	(18)	(177)
Amounts reclassified from AOCI ⁽³⁾	—	8	36	44
Net OCI	(43)	(108)	18	(133)
Balance as of December 31, 2019	\$ (607)	\$ (215)	\$ (117)	\$ (939)
SDG&E				
Balance as of December 31, 2016			\$ (8)	\$ (8)
OCI before reclassifications			(1)	(1)
Amounts reclassified from AOCI			1	1
Net OCI			—	—
Balance as of December 31, 2017			(8)	(8)
OCI before reclassifications			(6)	(6)
Amounts reclassified from AOCI			4	4
Net OCI			(2)	(2)
Balance as of December 31, 2018			(10)	(10)
Cumulative-effect adjustment from change in accounting principle			(2)	(2)
OCI before reclassifications			(5)	(5)
Amounts reclassified from AOCI			1	1
Net OCI			(4)	(4)
Balance as of December 31, 2019			\$ (16)	\$ (16)
SoCalGas:				
Balance as of December 31, 2016		\$ (13)	\$ (9)	\$ (22)
Amounts reclassified from AOCI		—	1	1
Net OCI		—	1	1
Balance as of December 31, 2017		(13)	(8)	(21)
OCI before reclassifications		—	(1)	(1)
Amounts reclassified from AOCI		1	1	2
Net OCI		1	—	1
Balance as of December 31, 2018		(12)	(8)	(20)
Cumulative-effect adjustment from change in accounting principle		(2)	(2)	(4)
OCI before reclassifications ⁽³⁾		—	(4)	(4)
Amounts reclassified from AOCI ⁽³⁾		1	4	5
Net OCI		1	—	1
Balance as of December 31, 2019		\$ (13)	\$ (10)	\$ (23)

⁽¹⁾ All amounts are net of income tax, if subject to tax, and exclude NCI.

⁽²⁾ Includes discontinued operations.

⁽³⁾ Pension and Other Postretirement Benefits and Total AOCI include a \$4 million transfer of liabilities from SoCalGas to Sempra Energy related to the nonqualified pension plan.

RECLASSIFICATIONS OUT OF ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)
(Dollars in millions)

Details about accumulated other comprehensive income (loss) components	Amounts reclassified from accumulated other comprehensive income (loss)			Affected line item on Consolidated Statements of Operations
	Years ended December 31,			
	2019	2018	2017	
Sempra Energy Consolidated:				
Financial instruments:				
Interest rate and foreign exchange instruments ⁽¹⁾	\$ 3	\$ —	\$ (4)	Interest Expense
	(9)	(2)	—	Other Income, Net
Interest rate instruments	10	9	—	Gain on Sale of Assets
Interest rate and foreign exchange instruments	5	7	20	Equity Earnings
Foreign exchange instruments	2	(1)	(2)	Revenues: Energy-Related Businesses
Commodity contracts not subject to rate recovery	—	—	9	Revenues: Energy-Related Businesses
Total before income tax	11	13	23	
	(2)	(4)	(6)	Income Tax (Expense) Benefit
Net of income tax	9	9	17	
	(1)	(6)	(10)	Earnings Attributable to Noncontrolling Interests
	\$ 8	\$ 3	\$ 7	
Pension and other postretirement benefits ⁽²⁾ :				
Amortization of actuarial loss	\$ 12	\$ 11	\$ 10	Other Income, Net
Amortization of actuarial loss	1	1	—	Income (Loss) from Discontinued Operations, Net of Income Tax
Amortization of prior service cost	3	2	1	Other Income, Net
Settlement charges	28	12	8	Other Income, Net
Total before income tax	44	26	19	
	(12)	(8)	(7)	Income Tax (Expense) Benefit
Net of income tax	\$ 32	\$ 18	\$ 12	
Total reclassifications for the period, net of tax	\$ 40	\$ 21	\$ 19	
SDG&E				
Financial instruments:				
Interest rate instruments ⁽¹⁾	\$ 3	\$ 7	\$ 13	Interest Expense
	(3)	(7)	(13)	Earnings Attributable to Noncontrolling Interest
	\$ —	\$ —	\$ —	
Pension and other postretirement benefits ⁽²⁾ :				
Amortization of actuarial loss	\$ —	\$ 1	\$ 1	Other Income, Net
Amortization of prior service cost	1	—	—	Other Income, Net
Settlement charges	—	4	—	Other Income, Net
Total before income tax	1	5	1	
	—	(1)	—	Income Tax Expense
Net of income tax	\$ 1	\$ 4	\$ 1	
Total reclassifications for the period, net of tax	\$ 1	\$ 4	\$ 1	
SoCalGas:				
Financial instruments:				
Interest rate instruments	\$ 1	\$ 1	\$ —	Interest Expense
Pension and other postretirement benefits ⁽²⁾ :				
Amortization of actuarial loss	\$ 1	\$ —	\$ —	Other Income, Net
Amortization of prior service cost	—	1	1	Other Income, Net
Total before income tax	1	1	1	
	(1)	—	—	Income Tax Expense
Net of income tax	\$ —	\$ 1	\$ 1	
Total reclassifications for the period, net of tax	\$ 1	\$ 2	\$ 1	

⁽¹⁾ Amounts include Otay Mesa VIE. All of SDG&E's interest rate derivative activity relates to Otay Mesa VIE.

⁽²⁾ Amounts are included in the computation of net periodic benefit cost (see "Net Periodic Benefit Cost" in Note 9).

NONCONTROLLING INTERESTS

Ownership interests in a consolidated entity that are held by unconsolidated owners are accounted for and reported as NCI.

SoCalGas Preferred Stock

The preferred stock at SoCalGas is presented at Sempra Energy as NCI. Sempra Energy records charges against income related to NCI for preferred stock dividends declared by SoCalGas. We provide additional information regarding SoCalGas' preferred stock in Note 13.

Other Noncontrolling Interests

SDG&E

As we discuss in "Variable Interest Entities" above, in August 2019, SDG&E and Sempra Energy deconsolidated Otay Mesa VIE after SDG&E determined that it is no longer the primary beneficiary of the VIE.

Sempra Mexico

In 2019, IEnova repurchased 2,620,000 shares of its outstanding common stock held by NCI for approximately \$10 million, resulting in an increase in Sempra Energy's ownership interest in IEnova from 66.5% to 66.6%.

In 2018, IEnova repurchased 2,000,000 shares of its outstanding common stock held by NCI for approximately \$7 million, resulting in an increase in Sempra Energy's ownership interest in IEnova from 66.4% to 66.5%.

Sempra Renewables

In April 2019, Sempra Renewables sold its remaining wind assets and investments, which included its wind tax equity arrangements. The remaining interest in PXiSE Energy Solutions, LLC was subsumed into Parent and other.

Sempra LNG

Sempra LNG and IEnova are developing a proposed natural gas liquefaction project at the site of IEnova's existing ECA LNG Regasification terminal. Sempra LNG consolidates the ECA LNG JV proposed liquefaction project. Thus, Sempra Energy's NCI in IEnova's 50% interest in the proposed project is reported at Sempra LNG.

In February 2019, Sempra LNG purchased for \$20 million the 9.1% minority interest in Bay Gas immediately prior to the sale of 100% of Bay Gas, which we discuss in Note 5.

The following table provides information about noncontrolling ownership interests held by others (not including preferred shareholders) recorded in Other Noncontrolling Interests in Total Equity on Sempra Energy's Consolidated Balance Sheets:

OTHER NONCONTROLLING INTERESTS

(Dollars in millions)

	Percent ownership held by noncontrolling interests		Equity (deficit) held by noncontrolling interests	
	December 31,		December 31,	
	2019	2018	2019	2018
SDG&E				
Otay Mesa VE	— %	100 %	\$ —	\$ 100
Sempra Mexico:				
IEnova	33.4	33.5	1,608	1,592
IEnova subsidiaries ⁽¹⁾	10.0 - 46.3	10.0 - 49.0	15	13
Sempra Renewables:				
Tax equity arrangements – wind ⁽²⁾	NA	NA	—	158
PXISE Energy Solutions, LLC ⁽³⁾	NA	11.1	—	1
Sempra LNG:				
Bay Gas	—	9.1	—	18
Liberty Gas Storage, LLC	24.6	24.6	(13)	(12)
ECALNG JV	16.7	—	12	—
Parent and other:				
PXISE Energy Solutions, LLC ⁽³⁾	20.0	NA	1	—
Discontinued Operations:				
Chilquinta Energía subsidiaries ⁽¹⁾	19.7 - 43.4	19.7 - 43.4	23	23
Luz del Sur	16.4	16.4	205	193
Tecsur	9.8	9.8	5	4
Total Sempra Energy			\$ 1,856	\$ 2,090

⁽¹⁾ IEnova and Chilquinta Energía have subsidiaries with NCI held by others. Percentage range reflects the highest and lowest ownership percentages among these subsidiaries.

⁽²⁾ Net income or loss attributable to NCI is computed using the HLBV method and is not based on ownership percentages.

⁽³⁾ In April 2019, PXISE Energy Solutions, LLC was subsumed into Parent and other.

REVENUES

See Note 3 for a description of significant accounting policies for revenues.

OPERATION AND MAINTENANCE EXPENSES

Operation and Maintenance includes O&M and general and administrative costs, consisting primarily of personnel costs, purchased materials and services, litigation expense and rent.

FOREIGN CURRENCY TRANSLATION AND TRANSACTIONS

The majority of our operations in South America as well as our natural gas distribution utility in Mexico, Ecogas, use their local currency as their functional currency. The assets and liabilities of their foreign operations are translated into U.S. dollars at current exchange rates at the end of the reporting period, and revenues and expenses are translated at average exchange rates for the year. The resulting noncash translation adjustments do not enter into the calculation of earnings or retained earnings, but are reflected in OCI and in AOCI.

Cash flows of these consolidated foreign subsidiaries are translated into U.S. dollars using average exchange rates for the period. We report the effect of exchange rate changes on cash balances held in foreign currencies in "Effect of Exchange Rate Changes on Cash, Cash Equivalents and Restricted Cash" on the Sempra Energy Consolidated Statements of Cash Flows.

Currency transaction gains (losses) in a currency other than Sempra Mexico's functional currency were \$21 million, \$(6) million and \$(33) million for the years ended December 31, 2019, 2018 and 2017, respectively, and are included in Other Income, Net, on

the Sempra Energy Consolidated Statements of Operations. Currency transaction gains (losses) in a currency other than Sempra South American Utilities' functional currency are included in discontinued operations.

TRANSACTIONS WITH AFFILIATES

We summarize amounts due from and to unconsolidated affiliates at Sempra Energy Consolidated, SDG&E and SoCalGas in the following table.

AMOUNTS DUE FROM (TO) UNCONSOLIDATED AFFILIATES

(Dollars in millions)

	December 31,	
	2019	2018
Sempra Energy Consolidated:		
Total due from various unconsolidated affiliates – current	\$ 32	\$ 37
Sempra Mexico ⁽¹⁾ :		
IMG JV – Note due March 15, 2022 ⁽²⁾	\$ 742	\$ 641
Energía Sierra Juárez – Note ⁽³⁾	—	3
Total due from unconsolidated affiliates – noncurrent	\$ 742	\$ 644
Total due to various unconsolidated affiliates – current	\$ (5)	\$ (10)
Sempra Mexico ⁽¹⁾ :		
TAG Pipelines Norte, S. de R.L. de C.V. – Note due December 20, 2021 ⁽⁴⁾	\$ (39)	\$ (37)
TAG JV – 5.74% Note due December 17, 2029 ⁽⁵⁾	(156)	—
Total due to unconsolidated affiliates – noncurrent	\$ (195)	\$ (37)
SDG&E		
Sempra Energy	\$ (37)	\$ (43)
SoCalGas	(10)	(6)
Various affiliates	(6)	(12)
Total due to unconsolidated affiliates – current	\$ (53)	\$ (61)
Income taxes due from Sempra Energy ⁽⁶⁾	\$ 130	\$ 5
SoCalGas:		
SDG&E	\$ 10	\$ 6
Various affiliates	1	1
Total due from unconsolidated affiliates – current	\$ 11	\$ 7
Sempra Energy	\$ (45)	\$ (34)
Various affiliates	(2)	—
Total due to unconsolidated affiliates – current	\$ (47)	\$ (34)
Income taxes due from (to) Sempra Energy ⁽⁶⁾	\$ 152	\$ (4)

⁽¹⁾ Amounts include principal balances plus accumulated interest outstanding.

⁽²⁾ Mexican peso-denominated revolving line of credit for up to 14.2 billion Mexican pesos or approximately \$751 million U.S. dollar-equivalent, at a variable interest rate based on the 91-day Interbank Equilibrium Interest Rate plus 220 bps (9.65% at December 31, 2019), to finance construction of the natural gas marine pipeline.

⁽³⁾ U.S. dollar-denominated loan at a variable interest rate based on the 30-day LIBOR plus 637.5 bps (8.89% at December 31, 2018).

⁽⁴⁾ U.S. dollar-denominated loan at a variable interest rate based on 6-month LIBOR plus 290 bps (4.81% at December 31, 2019).

⁽⁵⁾ U.S. dollar-denominated loan at a fixed interest rate.

⁽⁶⁾ SDG&E and SoCalGas are included in the consolidated income tax return of Sempra Energy and their respective income tax expense is computed as an amount equal to that which would result from each company having always filed a separate return.

The following table summarizes revenues and cost of sales from unconsolidated affiliates.

REVENUES AND COST OF SALES FROM UNCONSOLIDATED AFFILIATES

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Revenues:			
Sempra Energy Consolidated	\$ 52	\$ 64	\$ 43
SDG&E	6	5	8
SoCalGas	69	64	74
Cost of Sales:			
Sempra Energy Consolidated	\$ 50	\$ 46	\$ 47
SDG&E	74	73	71
SoCalGas	8	—	—

California Utilities

Sempra Energy, SDG&E and SoCalGas provide certain services to each other and are charged an allocable share of the cost of such services. Also, from time-to-time, SDG&E and SoCalGas may make short-term advances of surplus cash to Sempra Energy at interest rates based on the federal funds effective rate plus a margin of 13 to 20 bps, depending on the loan balance.

SoCalGas provides natural gas transportation and storage services for SDG&E and charges SDG&E for such services monthly. SoCalGas records revenues and SDG&E records a corresponding amount to cost of sales.

SDG&E and SoCalGas charge one another, as well as other Sempra Energy affiliates, for shared asset depreciation. SoCalGas and SDG&E record revenues and the affiliates record corresponding amounts to O&M.

The natural gas supply for SDG&E's and SoCalGas' core natural gas customers is purchased by SoCalGas as a combined procurement portfolio managed by SoCalGas. Core customers are primarily residential and small commercial and industrial customers. This core gas procurement function is considered a shared service; therefore, revenues and costs related to SDG&E are presented net in SoCalGas' Statements of Operations.

SDG&E has a 20-year contract for up to 155 MW of renewable power supplied from the Energía Sierra Juárez wind power generation facility. Energía Sierra Juárez is a 50% owned and unconsolidated JV of Sempra Mexico.

Sempra Mexico

Sempra Mexico, through its wholly owned subsidiaries, DEN and IEnova Pipelines, provides operating and maintenance services to TAG Pipelines Norte, S. de. R.L. de C.V., and also provides personnel under an administrative services arrangement to TAG Pipelines Norte, S. de. R.L. de C.V and TAG JV.

Sempra LNG

Sempra LNG provides project administration and operating and maintenance services to Cameron LNG JV, and also provides personnel under an administrative services arrangement. Sempra LNG has an agreement to provide transportation services to Cameron LNG JV for capacity on the Cameron Interstate Pipeline. Sempra Energy has provided guarantees to its Cameron LNG JV, as we discuss in Note 6.

RESTRICTED NET ASSETS

Sempra Energy Consolidated

As we discuss below, the California Utilities and certain other Sempra Energy subsidiaries have restrictions on the amount of funds that can be transferred to Sempra Energy by dividend, advance or loan as a result of conditions imposed by various regulators. Additionally, certain other Sempra Energy subsidiaries are subject to various financial and other covenants and other restrictions contained in debt and credit agreements (described in Note 7) and in other agreements that limit the amount of funds that can be transferred to Sempra Energy. At December 31, 2019, Sempra Energy was in compliance with all covenants related to its debt agreements.

At December 31, 2019, the amount of restricted net assets of consolidated entities of Sempra Energy, including the California Utilities discussed below, that may not be distributed to Sempra Energy in the form of a loan or dividend is \$10.4 billion. Additionally, the amount of restricted net assets of our unconsolidated entities is \$21.5 billion. Although the restrictions cap the amount of funding that the various operating subsidiaries can provide to Sempra Energy, we do not believe these restrictions will have a significant impact on our ability to access cash to pay dividends and fund operating needs.

As we discuss in Note 6, \$634 million of Sempra Energy's consolidated retained earnings represents undistributed earnings of equity method investments at December 31, 2019.

California Utilities

The CPUC's regulation of the California Utilities' capital structures limits the amounts available for dividends and loans to Sempra Energy. At December 31, 2019, Sempra Energy could have received combined loans and dividends of approximately \$885 million from SDG&E and approximately \$742 million from SoCalGas.

The payment and amount of future dividends by SDG&E and SoCalGas are at the discretion of their respective boards of directors. The following restrictions limit the amount of retained earnings that may be paid as common stock dividends or loaned to Sempra Energy from either utility:

- The CPUC requires that SDG&E's and SoCalGas' common equity ratios be no lower than one percentage point below the CPUC-authorized percentage of each entity's authorized capital structure. The authorized percentage at December 31, 2019 is 52% at both SDG&E and SoCalGas.
- SDG&E and SoCalGas each have a revolving credit line that requires it to maintain a ratio of consolidated indebtedness to consolidated capitalization (as defined in the agreements) of no more than 65%, as we discuss in Note 7.

Based on these restrictions, at December 31, 2019, SDG&E's restricted net assets were \$6.2 billion and SoCalGas' restricted net assets were \$4.0 billion, which could not be transferred to Sempra Energy.

Sempra Texas Utilities

Sempra Texas Utilities owns an indirect, 100% interest in Oncor Holdings, which, at December 31, 2019, owns an 80.25% interest in Oncor. As we discuss in Note 6, we account for our investment in Oncor Holdings under the equity method. Significant restrictions at Oncor that limit the amount that may be paid as dividends to Sempra Energy include:

- In connection with the ring-fencing measures, governance mechanisms and commitments that we describe in Note 6, Oncor may not pay any dividends or make any other distributions (except for contractual tax payments) if a majority of its independent directors or a minority member director determines that it is in the best interests of Oncor to retain such amounts to meet expected future requirements.
- Oncor must remain in compliance with the debt-to-equity ratio established by the PUCT for ratemaking purposes and may not pay dividends or other distributions (except for contractual tax payments) if that payment would cause it to exceed its PUCT authorized debt-to-equity ratio (57.5% debt to 42.5% equity as of December 31, 2019).
- If the credit rating on Oncor's senior secured debt by any of the three major credit rating agencies falls below BBB (or the equivalent), Oncor will suspend dividends and other distributions (except for contractual tax payments), unless otherwise allowed by the PUCT. At December 31, 2019, all of Oncor's senior secured ratings were above BBB.
- Oncor's revolving credit line, note purchase agreements, and term loan credit agreements require it to maintain a consolidated senior debt-to-capitalization ratio of no more than 65% and observe certain affirmative covenants. At December 31, 2019, Oncor was in compliance with these covenants.

Based on these restrictions, at December 31, 2019, Oncor's restricted net assets were \$10.9 billion, which could not be transferred to Sempra Energy.

As we discuss in Note 5, we acquired an indirect, 50% interest in Sharyland Holdings, which owns a 100% interest in Sharyland Utilities, in May 2019. Significant restrictions related to this equity method investment include:

- Sharyland Utilities may not pay dividends or make other distributions (except for contractual payments) without the consent of the JV partner.
- Sharyland Utilities must remain in compliance with the debt-to-equity ratio established by the PUCT for ratemaking purposes and may not pay dividends or other distributions (except for contractual tax payments) if that payment would cause its debt-to-equity ratio to exceed 55% debt to 45% equity, which was authorized by the PUCT.
- Sharyland Utilities has a revolving credit line and a term loan credit agreement that require it to maintain a consolidated debt-to-capitalization ratio of no more than 70% and observe certain customary reporting requirements and other affirmative covenants. At December 31, 2019, Sharyland Utilities was in compliance with these and all other covenants.

Based on these restrictions, at December 31, 2019, Sharyland Utilities' restricted net assets were \$115 million, which could not be transferred to its owners.

Sempra Mexico

Significant restrictions at Sempra Mexico include:

- Mexico requires domestic corporations to maintain minimum legal reserves as a percentage of capital stock, resulting in restricted net assets of \$178 million at Sempra Energy's consolidated Mexican subsidiaries at December 31, 2019.
- Wholly owned IEnova Pipelines has a long-term debt agreement that requires it to maintain a reserve account to pay the projects' debt. Under this restriction, net assets totaling \$17 million are restricted at December 31, 2019.
- Wholly owned Ventika has long-term debt agreements that require it to maintain reserve accounts to pay the projects' debt. The debt agreements may limit the project companies' ability to incur liens, incur additional indebtedness, make investments, pay cash dividends and undertake certain additional actions. Under these restrictions, net assets totaling \$14 million are restricted at December 31, 2019.
- Energía Sierra Juárez, a 50% owned and unconsolidated JV of Sempra Mexico, has long-term debt agreements that require the establishment and funding of project and reserve accounts to which the proceeds of loans, letter of credit borrowings, project revenues and other amounts are deposited and applied in accordance with the debt agreements. The long-term debt agreements also limit the JV's ability to incur liens, incur additional indebtedness, make acquisitions and undertake certain actions. Under these restrictions, net assets totaling \$15 million are restricted at December 31, 2019.
- TAGJV, a 50% owned and unconsolidated JV of Sempra Mexico, has a long-term debt agreement that requires it to maintain a reserve account to pay the projects' debt. Under these restrictions, net assets totaling \$171 million are restricted at December 31, 2019.

Sempra LNG

Sempra LNG has an equity method investment in Cameron LNG JV, which has debt agreements that require the establishment and funding of project accounts to which the proceeds of loans, project revenues and other amounts are deposited and applied in accordance with the debt agreements. The debt agreements require the JV to maintain reserve accounts in order to pay the project debt service, and also contain restrictions related to the payment of dividends and other distributions to the members of the JV. To support Cameron LNG JV's obligations under its debt agreements, Cameron LNG JV has granted security over all of its assets, subject to customary exceptions, and all equity interests in Cameron LNG JV have been pledged to HSBC Bank USA, National Association, as security trustee for the benefit of all of Cameron LNG JV's creditors. We discuss Cameron LNG JV's debt agreements and the associated Sempra Energy guarantees in Note 6. Under these restrictions, total assets of Cameron LNG JV of approximately \$10.3 billion are restricted at December 31, 2019.

OTHER INCOME, NET

Other Income, Net on the Consolidated Statements of Operations consists of the following:

OTHER INCOME, NET*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Allowance for equity funds used during construction	\$ 94	\$ 98	\$ 168
Investment gains (losses) ⁽¹⁾	61	(6)	56
Gains on interest rate and foreign exchange instruments, net	34	7	47
Foreign currency transaction gains (losses), net ⁽²⁾	21	(6)	(33)
Non-service component of net periodic benefit cost	(132)	(35)	(20)
Penalties related to billing practices OII	(8)	—	—
Interest on regulatory balancing accounts, net	14	2	3
Sundry, net	(7)	(2)	(1)
Total	\$ 77	\$ 58	\$ 220
SDG&E			
Allowance for equity funds used during construction	\$ 56	\$ 61	\$ 63
Non-service component of net periodic benefit (cost) credit	(20)	(6)	4
Interest on regulatory balancing accounts, net	13	4	3
Sundry, net	(10)	(3)	—
Total	\$ 39	\$ 56	\$ 70
SoCalGas:			
Allowance for equity funds used during construction	\$ 34	\$ 36	\$ 44
Non-service component of net periodic benefit cost	(72)	(10)	(5)
Penalties related to billing practices OII	(8)	—	—
Interest on regulatory balancing accounts, net	1	(2)	—
Sundry, net	(10)	(9)	(8)
Total	\$ (55)	\$ 15	\$ 31

⁽¹⁾ Represents investment gains (losses) on dedicated assets in support of our executive retirement and deferred compensation plans. These amounts are partially offset by corresponding changes in compensation expense related to the plans, recorded in O&M on the Consolidated Statements of Operations.

⁽²⁾ Includes gains of \$30 million in 2019 and losses of \$3 million and \$35 million in 2018 and 2017, respectively, from translation to U.S. dollars of a Mexican peso-denominated loan to IMG JV, which are offset by corresponding amounts included in Equity Earnings on the Consolidated Statements of Operations.

NOTE 2. NEW ACCOUNTING STANDARDS

We describe below recent accounting pronouncements that have had or may have a significant effect on our financial condition, results of operations, cash flows or disclosures.

ASU 2016-02, “Leases,” ASU 2018-01, “Land Easement Practical Expedient for Transition to Topic 842,” ASU 2018-10, “Codification Improvements to Topic 842, Leases,” ASU 2018-11, “Leases (Topic 842): Targeted Improvements,” ASU 2018-20, “Narrow-Scope Improvements for Lessors” and ASU 2019-01, “Leases (Topic 842): Codification Improvements” (collectively referred to as the “lease standard”): In 2016, the Financial Accounting Standards Board began issuing the first in a series of ASUs intended to increase transparency and comparability among organizations with leasing activities. The most significant provision of the lease standard is the requirement that lessees recognize operating lease ROU assets and lease liabilities on the balance sheet.

We adopted the lease standard on January 1, 2019 using the optional modified retrospective transition method to apply the new guidance as of January 1, 2019, rather than as of the earliest period presented. We elected the package of practical expedients that permits us to not reassess (a) whether a contract is or contains a lease, (b) lease classification or (c) determination of initial direct costs, which allows us to carry forward accounting conclusions under previous U.S. GAAP on contracts that commenced prior to adoption of the lease standard. We also elected the land easement practical expedient, which allows us to continue to account for pre-existing land easements under our accounting policy that existed before adoption of the lease standard. We did not elect the practical expedient to use hindsight in making judgments when determining the lease term.

The adoption of the lease standard did not change our previously reported financial statements. However, in accordance with the lease standard, on a prospective basis, a significant portion of finance lease costs for PPAs that have historically been presented in

Cost of Electric Fuel and Purchased Power are now presented in Depreciation and Amortization Expense and Interest Expense on Sempra Energy's and SDG&E's statements of operations. Additionally, the adoption of the lease standard had a material impact on our balance sheets at January 1, 2019 due to the initial recognition of ROU assets and lease liabilities for operating leases. Our finance leases were already included on our balance sheets prior to adoption of the lease standard, consistent with previous U.S. GAAP for capital leases.

The following table shows the initial increases (decreases) on our balance sheets at January 1, 2019 from adoption of the lease standard.

IMPACT FROM ADOPTION OF THE LEASE STANDARD

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Assets held for sale	\$ 13	\$ —	\$ —
Other long-term assets	(71)	—	—
Property, plant and equipment, net	(147)	—	—
Right-of-use assets – operating leases	603	130	116
Deferred income tax assets	(3)	—	—
Other current liabilities	80	20	23
Long-term debt and finance leases	(138)	—	—
Deferred credits and other	436	110	93
Retained earnings	17	—	—

As a result of the adoption of the lease standard, we derecognized the asset and liability associated with our corporate headquarters building in accordance with the transition provisions for build-to-suit arrangements. On a prospective basis, we will account for the corporate headquarters building lease as an operating lease. The initial impact is included in the above table.

We include additional disclosures about our leases in Note 16.

ASU 2016-13, “Measurement of Credit Losses on Financial Instruments”: ASU 2016-13, as amended by subsequently issued ASUs, changes how entities will measure credit losses for most financial assets and certain other instruments. The standard introduces an “expected credit loss” impairment model that requires immediate recognition of estimated credit losses expected to occur over the remaining life of most financial assets measured at amortized cost, including trade and other receivables, loan commitments and financial guarantees. ASU 2016-13 also requires use of an allowance to record estimated credit losses on available-for-sale debt securities and expands disclosure requirements regarding an entity's assumptions, models and methods for estimating the credit losses.

For public entities, ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, including interim periods therein, with early adoption permitted for fiscal years beginning after December 15, 2018. The amendments are to be applied using a modified retrospective approach through a cumulative-effect adjustment to retained earnings at the beginning of the first reporting period in the year of adoption.

On a prospective basis, the new standard will primarily apply to our accounts receivable balances, amounts due from unconsolidated affiliates and off-balance sheet financial guarantees. We will adopt the standard on January 1, 2020.

We expect no impact to SDG&E's or SoCalGas' balance sheets from adoption. The following table shows the expected (decreases) increases on Sempra Energy's balance sheet at January 1, 2020 from adoption of ASU 2016-13.

EXPECTED IMPACT FROM ADOPTION OF ASU 2016-13

(Dollars in millions)

	Sempra Energy Consolidated
Accounts receivable – trade, net	\$ (1)
Due from unconsolidated affiliates – noncurrent	(6)
Deferred income tax assets	4
Other current liabilities	4
Deferred credits and other	2
Retained earnings	(7)
Other noncontrolling interests	(2)

ASU 2017-04, “Simplifying the Test for Goodwill Impairment”: ASU 2017-04 removes the second step of the goodwill impairment test, which requires a hypothetical purchase price allocation. An entity will be required to apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit’s carrying amount over its fair value, not to exceed the carrying amount of goodwill. For public entities, ASU 2017-04 is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted. The amendments are to be applied on a prospective basis. We will adopt the standard on January 1, 2020.

ASU 2018-02, “Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income”: ASU 2018-02 contains amendments that allow a reclassification from AOCI to retained earnings for stranded tax effects resulting from the TCJA. Under ASU 2018-02, an entity is required to provide certain disclosures regarding stranded tax effects, including its accounting policy related to releasing the income tax effects from AOCI. The amendments in this update can be applied either as of the beginning of the period of adoption or retrospectively as of the date of enactment of the TCJA and to each period in which the effect of the TCJA is recognized. We adopted ASU 2018-02 on January 1, 2019 and reclassified the income tax effects of the TCJA from AOCI to retained earnings.

The impact from adoption of ASU 2018-02 on January 1, 2019 was as follows:

- Sempra Energy: increase of \$40 million to beginning Retained Earnings, \$2 million to noncurrent Regulatory Liabilities and \$42 million to Accumulated Other Comprehensive Loss;
- SDG&E: increase of \$2 million to beginning Retained Earnings and Accumulated Other Comprehensive Loss; and
- SoCalGas: increase of \$2 million to beginning Retained Earnings, \$2 million to noncurrent Regulatory Liabilities and \$4 million to Accumulated Other Comprehensive Loss.

ASU 2019-12, “Simplifying the Accounting for Income Taxes”: ASU 2019-12 simplifies certain areas of accounting for income taxes. In addition to other changes, this standard amends ASC 740, “Income Taxes,” as follows:

- removes the exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items, including discontinued operations or other comprehensive income;
- simplifies the recognition of deferred taxes related to basis differences as a result of ownership changes in investments;
- specifies an entity is not required to allocate the consolidated amount of current and deferred tax expense to a legal entity that is not subject to tax in its separate financial statements; and
- requires an entity to reflect the effect of an enacted change in tax laws or rates in the annual ETR computation in the interim period that includes the enactment date.

For public entities, ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods therein, with early adoption permitted. The transition method related to the amendments made by ASU 2019-12 vary based on the nature of the change. We are currently evaluating our planned adoption date and the effect of the standard on our ongoing financial reporting.

NOTE 3. REVENUES

The following table disaggregates our revenues from contracts with customers by major service line and market and provides a reconciliation to total revenues by segment. The majority of our revenue is recognized over time.

DISAGGREGATED REVENUES

(Dollars in millions)

	Year ended December 31, 2019						
	SDG&E	SoCalGas	Sempra Mexico	Sempra Renewables	Sempra LNG	Consolidating adjustments and Parent and other	Sempra Energy Consolidated
By major service line:							
Utilities	\$ 4,819	\$ 4,367	\$ 73	\$ —	\$ —	\$ (75)	\$ 9,184
Energy-related businesses	—	—	919	5	176	(143)	957
Revenues from contracts with customers	\$ 4,819	\$ 4,367	\$ 992	\$ 5	\$ 176	\$ (218)	\$ 10,141
By market:							
Gas	\$ 587	\$ 4,367	\$ 680	\$ —	\$ 170	\$ (208)	\$ 5,596

Electric	4,232	—	312	5	6	(10)	4,545
Revenues from contracts with customers	\$ 4,819	\$ 4,367	\$ 992	\$ 5	\$ 176	\$ (218)	\$ 10,141
Revenues from contracts with customers	\$ 4,819	\$ 4,367	\$ 992	\$ 5	\$ 176	\$ (218)	\$ 10,141
Utilities regulatory revenues	106	158	—	—	—	—	264
Other revenues	—	—	383	5	234	(198)	424
Total revenues	\$ 4,925	\$ 4,525	\$ 1,375	\$ 10	\$ 410	\$ (416)	\$ 10,829

Year ended December 31, 2018

	SDG&E	SoCalGas	Sempra Mexico	Sempra Renewables	Sempra LNG	Consolidating adjustments and Parent and other	Sempra Energy Consolidated
By major service line:							
Utilities	\$ 4,788	\$ 3,577	\$ 78	\$ —	\$ —	\$ (69)	\$ 8,374
Energy-related businesses	—	—	941	46	232	(146)	1,073
Revenues from contracts with customers	\$ 4,788	\$ 3,577	\$ 1,019	\$ 46	\$ 232	\$ (215)	\$ 9,447
By market:							
Gas	\$ 491	\$ 3,577	\$ 711	\$ —	\$ 224	\$ (203)	\$ 4,800
Electric	4,297	—	308	46	8	(12)	4,647
Revenues from contracts with customers	\$ 4,788	\$ 3,577	\$ 1,019	\$ 46	\$ 232	\$ (215)	\$ 9,447
Revenues from contracts with customers	\$ 4,788	\$ 3,577	\$ 1,019	\$ 46	\$ 232	\$ (215)	\$ 9,447
Utilities regulatory revenues	(220)	385	—	—	—	—	165
Other revenues	—	—	357	78	240	(185)	490
Total revenues	\$ 4,568	\$ 3,962	\$ 1,376	\$ 124	\$ 472	\$ (400)	\$ 10,102

REVENUES FROM CONTRACTS WITH CUSTOMERS

Our revenues from contracts with customers are primarily related to the transmission, distribution and storage of natural gas and the generation, transmission and distribution of electricity through our regulated utilities. We also provide other midstream and renewable energy-related services. We assess our revenues on a contract-by-contract basis as well as a portfolio basis to determine the nature, amount, timing and uncertainty, if any, of revenues being recognized.

We generally recognize revenues when performance of the promised commodity service is provided to our customers and invoice our customers for an amount that reflects the consideration we are entitled to in exchange for those services. We consider the delivery and transmission of natural gas and electricity and providing of natural gas storage services as ongoing and integrated services. Generally, natural gas or electricity services are received and consumed by the customer simultaneously. Our performance obligations related to these services are satisfied over time and represent a series of distinct services that are substantially the same and that have the same pattern of transfer to the customers. We recognize revenue based on units delivered, as the satisfaction of our performance obligations can be directly measured by the amount of natural gas or electricity delivered to the customer. In most cases, the right to consideration from the customer directly corresponds to the value transferred to the customer and we recognize revenue in the amount that we have the right to invoice.

The payment terms in our customer contracts vary. Typically, we have an unconditional right to customer payments, which are due after the performance obligation to the customer is satisfied. The term between invoicing and when payment is due is typically between 10 and 90 days.

We exclude sales and usage-based taxes from revenues. In addition, the California Utilities pay franchise fees to operate in various municipalities. The California Utilities bill these franchise fees to their customers based on a CPUC-authorized rate. These franchise fees, which are required to be paid regardless of the California Utilities' ability to collect from the customer, are accounted for on a gross basis and reflected in utilities revenues from contracts with customers and operating expense.

Utilities Revenues

Utilities revenues represent the majority of our consolidated revenues from contracts with customers and include:

The transmission, distribution and storage of natural gas at:

- SDG&E
- SoCalGas

- Sempra Mexico's Ecogas

The generation, transmission and distribution of electricity at SDG&E.

Utilities revenues are derived from and recognized upon the delivery of natural gas or electricity services to customers. Amounts that we bill our customers are based on tariffs set by regulators within the respective state or country. For SDG&E and SoCalGas, which follow the provisions of U.S. GAAP governing rate-regulated operations as we discuss in Note 1, amounts that we bill to customers also include adjustments for previously recognized regulatory revenues.

The California Utilities and Ecogas recognize revenues based on regulator-approved revenue requirements, which allows the utilities to recover their reasonable operating costs and provides the opportunity to realize their authorized rates of return on their investments. While the California Utilities' revenues are not affected by actual sales volumes, the pattern of their revenue recognition during the year is affected by seasonality. SoCalGas recognizes annual authorized revenue for core natural gas customers using seasonal factors established in the Triennial Cost Allocation Proceeding. Accordingly, a significant portion of SoCalGas' annual earnings are recognized in the first and fourth quarters of each year. SDG&E's authorized revenue recognition is also impacted by seasonal factors, resulting in higher earnings in the third quarter when electric loads are typically higher than in the other three quarters of the year.

SDG&E has an arrangement to provide the California ISO with the ability to control its high-voltage transmission lines for prices approved by the FERC. Revenue is recognized over time as access is provided to the California ISO.

Factors that can affect the amount, timing and uncertainty of revenues and cash flows include weather, seasonality and timing of customer billings, which may result in unbilled revenues that can vary significantly from month to month and generally approximate one-half month's deliveries.

The California Utilities recognize revenues from the sale of allocated California GHG emissions allowances at quarterly auctions administered by CARB. GHG allowances are delivered to CARB in advance of the quarterly auctions, and the California Utilities have the right to payment when the GHG allowances are sold at auction. GHG revenue is recognized on a point in time basis within the quarter the auction is held. The California Utilities balance costs and revenues associated with the GHG program through regulatory balancing accounts.

Energy-Related Businesses Revenues

Midstream Revenues

Midstream revenues at Sempra Mexico and Sempra LNG typically represent revenues from long-term, U.S. dollar-based contracts with customers for the sale of natural gas and LNG, as well as storage and transportation of natural gas. Invoiced amounts are based on the volume of natural gas delivered and contracted prices.

Sempra Mexico's marketing operations sell natural gas to the CFE and other customers under supply agreements. Sempra Mexico recognizes the revenue from the sale of natural gas upon transfer of the natural gas via pipelines to customers at the agreed upon delivery points, and in the case of the CFE, at its thermoelectric power plants.

Through its marketing operations, Sempra LNG has contracts to sell natural gas and LNG to Sempra Mexico that allow Sempra Mexico to satisfy its obligations under supply agreements with the CFE and other customers, and to supply Sempra Mexico's TdM power plant. Because Sempra Mexico either immediately delivers the natural gas to its customers or consumes the benefits simultaneously (by using the gas to supply TdM), revenues from Sempra LNG's sale of natural gas to Sempra Mexico are generally recognized over time as delivered. Revenues from LNG sales are recognized at the point when the cargo is delivered to Sempra Mexico.

Revenues from the sale of LNG and natural gas by Sempra LNG to Sempra Mexico are adjusted for indemnity payments and profit sharing. We consider these adjustments to be forms of variable consideration that are associated with the sale of LNG and natural gas to Sempra Mexico, and therefore, Sempra LNG records the related costs as an offset to revenues, with no impact to Sempra Energy's consolidated revenues.

We recognize storage revenue from firm capacity reservation agreements, under which we collect a fee for reserving storage capacity for customers in our underground storage facilities. Under these firm agreements, customers pay a monthly fixed reservation fee based on the storage capacity reserved rather than the actual volumes stored. For the fixed-fee component, revenue is recognized on a straight-line basis over the term of the contract. We bill customers for any capacity used in excess of the contracted capacity and such revenues are recognized in the month of occurrence. We also recognize revenue for interruptible storage services. As we discuss in Note 5, on February 7, 2019, Sempra LNG completed the sale of its non-utility natural gas storage assets in the southeast U.S. (comprised of Mississippi Hub and Bay Gas).

We generate pipeline transportation revenues from firm agreements, under which customers pay a fee for reserving transportation capacity. Revenue is recognized when the volumes are delivered to the customers' agreed upon delivery point. We recognize revenues for our stand-ready obligation to provide capacity and transportation services throughout the contractual delivery period, as the benefits are received and consumed simultaneously as customers utilize pipeline capacity for the transport and receipt of natural gas and LPG. Invoiced amounts are based on a variable usage fee and a fixed capacity charge, adjusted for the Consumer Price Index, the effects of any foreign currency translation and the actual quantity of commodity transported.

Renewables Revenues

Sempra Renewables and Sempra Mexico develop, invest in and operate solar and wind facilities that have long-term PPAs to sell the electricity and the related green energy attributes they generate to customers, generally load serving entities, and also for Sempra Mexico, industrial and other customers. Load serving entities will sell electric service to their end-users and wholesale customers immediately upon receipt of our power delivery, and industrial and other customers immediately consume the electricity to run their facilities, and thus, we recognize the revenue under the PPAs as the electricity is generated. We invoice customers based on the volume of energy delivered at rates pursuant to the PPAs. As we discuss in Note 5, in December 2018, we completed the sale of Sempra Renewables' U.S. operating solar assets, solar and battery storage development projects and its 50% ownership interest in a wind power generation facility. In April 2019, Sempra Renewables completed the sale of its remaining wind assets and investments.

Sempra LNG continues to have a contractual agreement to provide scheduling and marketing of renewable power for Sempra Mexico's renewables' entities. Invoiced amounts are based on a fixed fee per MWh scheduled.

Other Revenues from Contracts with Customers

TdM is a natural gas-fired power plant that generates revenues from selling electricity and/or resource adequacy to the California ISO and to governmental, public utility and wholesale power marketing entities, as the power is delivered at the interconnection point.

Remaining Performance Obligations

We do not disclose information about remaining performance obligations for (a) contracts with an original expected length of one year or less, (b) variable consideration recognized at the amount at which we have the right to invoice for services performed, or (c) variable consideration allocated to wholly unsatisfied performance obligations.

For contracts greater than one year, at December 31, 2019, we expect to recognize revenue related to the fixed fee component of the consideration as shown below. Sempra Energy's remaining performance obligations primarily relate to capacity agreements for natural gas storage and transportation at Sempra Mexico. SoCalGas did not have any remaining performance obligations at December 31, 2019.

REMAINING PERFORMANCE OBLIGATIONS⁽¹⁾

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E	
2020	\$	390	\$	4
2021		403		4
2022		406		4
2023		402		4
2024		349		4
Thereafter		4,699		71
Total revenues to be recognized	\$	6,649	\$	91

⁽¹⁾ Excludes intercompany transactions.

Contract Balances from Revenues from Contracts with Customers

From time to time, we receive payments in advance of satisfying the performance obligations associated with customer contracts. We defer such revenues as contract liabilities and recognize them in earnings as the performance obligations are satisfied.

Activities within Sempra Energy's and SDG&E's contract liabilities are presented below. There were no contract liability activities at SDG&E in 2018 or SoCalGas in 2019 or 2018.

CONTRACT LIABILITIES*(Dollars in millions)*

	Sempra Energy Consolidated	SDG&E
Opening balance, January 1, 2019	\$ (70)	\$ —
Revenue from performance obligations satisfied during reporting period	2	1
Payments received in advance	(95)	(92)
Balance at December 31, 2019 ⁽¹⁾	\$ (163)	\$ (91)
Opening balance, January 1, 2018	\$ —	
Adoption of ASC 606 adjustment	(61)	
Revenue from performance obligations satisfied during reporting period	7	
Payments received in advance	(16)	
Balance at December 31, 2018	\$ (70)	

⁽¹⁾ Includes \$4 million and \$4 million in Other Current Liabilities and \$159 million and \$87 million in Deferred Credits and Other on the Sempra Energy and SDG&E Consolidated Balance Sheets, respectively.

Receivables from Revenues from Contracts with Customers

The table below shows receivable balances associated with revenues from contracts with customers on our Consolidated Balance Sheets.

RECEIVABLES FROM REVENUES FROM CONTRACTS WITH CUSTOMERS*(Dollars in millions)*

	December 31,	
	2019	2018
Sempra Energy Consolidated:		
Accounts receivable – trade, net	\$ 1,163	\$ 1,106
Accounts receivable – other, net	16	11
Due from unconsolidated affiliates – current ⁽¹⁾	5	4
Assets held for sale	—	6
Total	\$ 1,184	\$ 1,127
SDG&E:		
Accounts receivable – trade, net	\$ 398	\$ 368
Accounts receivable – other, net	5	6
Due from unconsolidated affiliates – current ⁽¹⁾	2	3
Total	\$ 405	\$ 377
SoCalGas:		
Accounts receivable – trade, net	\$ 710	\$ 634
Accounts receivable – other, net	11	5
Total	\$ 721	\$ 639

⁽¹⁾ Amount is presented net of amounts due to unconsolidated affiliates on the Consolidated Balance Sheets, when right of offset exists.

REVENUES FROM SOURCES OTHER THAN CONTRACTS WITH CUSTOMERS

Certain of our revenues are derived from sources other than contracts with customers and are accounted for under other accounting standards outside the scope of ASC 606.

Utilities Regulatory Revenues*Alternative Revenue Programs*

We recognize revenues from alternative revenue programs when the regulator-specified conditions for recognition have been met and adjust these revenues as they are recovered or refunded through future utility service.

Decoupled revenues. As discussed earlier, the regulatory framework requires the California Utilities to recover authorized revenue based on estimated annual demand forecasts approved in regular proceedings before the CPUC. However, actual demand for natural gas and electricity will generally vary from CPUC-approved forecasted demand due to the impacts from weather volatility, energy efficiency programs, rooftop solar and other factors affecting consumption. The CPUC regulatory framework provides for the California Utilities to use a “decoupling” mechanism, which allows the California Utilities to record revenue

shortfalls or excess revenues resulting from any difference between actual and forecasted demand to be recovered or refunded in authorized revenue in a subsequent period based on the nature of the account.

Incentive mechanisms. The CPUC applies performance-based measures and incentive mechanisms to all California IOUs, under which the California Utilities have earnings potential above authorized base margins if they achieve or exceed specific performance and operating goals. Generally, for performance-based awards, if performance is above or below specific benchmarks, the utility is eligible for financial awards or subject to financial penalties.

Incentive awards are included in revenues when we receive required CPUC approval of the award, the timing of which may not be consistent from year to year. We would record penalties for results below the specified benchmarks against revenues when we believe it is probable that the CPUC would assess a penalty.

Other Cost-Based Regulatory Recovery

The CPUC, and the FERC as it relates to SDG&E, authorize the California Utilities to collect revenue requirements for operating costs and capital related costs (such as depreciation, taxes and return on rate base) from customers, including:

- costs to purchase natural gas and electricity;
- costs associated with administering public purpose, demand response, and customer energy efficiency programs;
- other programmatic activities, such as gas distribution, gas transmission, gas storage integrity management and wildfire mitigation; and
- costs associated with third party liability insurance premiums.

Authorized costs are recovered as the commodity or service is delivered. To the extent authorized amounts collected vary from actual costs, the differences are generally recovered or refunded within a subsequent period based on the nature of the balancing account mechanism. In general, the revenue recognition criteria for balanced costs billed to customers are met at the time the costs are incurred. Because these costs are substantially recovered in rates through a balancing account mechanism, changes in these costs are reflected as changes in revenues. The CPUC and the FERC may impose various review procedures before authorizing recovery or refund for programs authorized, including limitations on the total cost of the program, revenue requirement limits or reviews of costs for reasonableness. These procedures could result in disallowances of recovery from ratepayers.

We discuss balancing accounts and their effects further in Note 4.

Other Revenues

Sempra LNG has an agreement to supply LNG to Sempra Mexico's ECA LNG Regasification terminal. Although the LNG sale and purchase agreement specifies a number of cargoes to be delivered annually, actual cargoes delivered by the supplier have traditionally been significantly lower than the maximum specified under the agreement. As a result, Sempra LNG is contractually required to make monthly indemnity payments to Sempra Mexico for failure to deliver the contracted LNG.

Sempra Mexico generates lease revenues from operating lease agreements with PEMEX and CENAGAS for the use of natural gas and ethane pipelines and LPG storage facilities. Certain PPAs at Sempra Renewables were also accounted for as operating leases prior to sale of its solar and wind assets in December 2018 and April 2019.

Sempra LNG also recognizes other revenues from:

- fees related to contractual counterparty obligations for non-delivery of LNG cargoes, as described above; and
- sales of natural gas and electricity under short-term and long-term contracts and into the spot market and other competitive markets. Revenues include the net realized gains and losses on physical and derivative settlements and net unrealized gains and losses from the change in fair values of the derivatives.

NOTE 4. REGULATORY MATTERS

REGULATORY ASSETS AND LIABILITIES

We show the details of regulatory assets and liabilities in the following table and discuss them below.

REGULATORY ASSETS (LIABILITIES)

(Dollars in millions)

	December 31,	
	2019	2018
SDG&E:		
Fixed-price contracts and other derivatives	\$ 8	\$ (150)
Deferred income taxes refundable in rates	(108)	(236)
Pension and other postretirement benefit plan obligations	103	186
Removal obligations	(2,056)	(1,848)
Environmental costs	45	28
Sunrise Powerlink fire mitigation	121	120
Regulatory balancing accounts ⁽¹⁾⁽²⁾		
Commodity – electric	102	(8)
Gas transportation	22	45
Safety and reliability	77	70
Public purpose programs	(124)	(62)
2019 GRC retroactive impacts	111	—
Other balancing accounts	106	145
Other regulatory liabilities, net ⁽²⁾	(153)	(170)
Total SDG&E	(1,746)	(1,880)
SoCalGas:		
Deferred income taxes refundable in rates	(203)	(336)
Pension and other postretirement benefit plan obligations	400	470
Employee benefit costs	44	49
Removal obligations	(728)	(833)
Environmental costs	40	28
Regulatory balancing accounts ⁽¹⁾⁽²⁾		
Commodity – gas, including transportation	(118)	196
Safety and reliability	295	332
Public purpose programs	(273)	(325)
2019 GRC retroactive impacts	400	—
Other balancing accounts	(7)	(68)
Other regulatory liabilities, net ⁽²⁾	(101)	(114)
Total SoCalGas	(251)	(601)
Sempra Mexico:		
Deferred income taxes recoverable in rates	83	81
Other regulatory assets	6	6
Total Sempra Energy Consolidated	\$ (1,908)	\$ (2,394)

⁽¹⁾ At December 31, 2019 and 2018, the noncurrent portion of regulatory balancing accounts – net undercollected for SDG&E was \$108 million and \$78 million, respectively. At December 31, 2019 and 2018, the noncurrent portion of regulatory balancing accounts – net undercollected for SoCalGas was \$500 million and \$185 million, respectively.

⁽²⁾ Includes regulatory assets earning a return.

In the table above:

- Regulatory assets arising from fixed-price contracts and other derivatives are offset by corresponding liabilities arising from purchased power and natural gas commodity and transportation contracts. The regulatory asset is increased/decreased based on changes in the fair market value of the contracts. It is also reduced as payments are made for commodities and services under these contracts.
- Deferred income taxes refundable/recoverable in rates are based on current regulatory ratemaking and income tax laws.

SDG&E, SoCalGas and Semptra Mexico expect to refund/recover net regulatory liabilities/assets related to deferred income taxes over the lives of the assets that give rise to the related accumulated deferred income tax balances. Regulatory assets and liabilities include certain income tax benefits and expenses associated with flow-through items, which we discuss in Note 8.

- Regulatory assets/liabilities related to pension and other postretirement benefit plan obligations are offset by corresponding liabilities/assets and are being recovered in rates as the plans are funded.
- The regulatory asset related to employee benefit costs represents our liability associated with long-term disability insurance that will be recovered from customers in future rates as expenditures are made.
- Regulatory liabilities from removal obligations represent cumulative amounts collected in rates for future asset removal costs in excess of cumulative amounts incurred (or paid).
- Regulatory assets related to environmental costs represent the portion of our environmental liability recognized at the end of the period in excess of the amount that has been recovered through rates charged to customers. We expect this amount to be recovered in future rates as expenditures are made.
- The regulatory asset related to Sunrise Powerlink fire mitigation is offset by a corresponding liability for the funding of a trust to cover the mitigation costs. SDG&E expects to recover the regulatory asset in rates as the trust is funded over a remaining 50-year period.
- Over- and undercollected regulatory balancing accounts reflect the difference between customer billings and recorded or CPUC-authorized costs, including commodity costs. Depreciation and return on rate base may also be included in certain accounts. Amounts in the balancing accounts are recoverable (receivable) or refundable (payable) in future rates, subject to CPUC approval.

Amortization expense on regulatory assets for the years ended December 31, 2019, 2018 and 2017 was \$7 million, \$5 million and \$50 million, respectively, at Semptra Energy Consolidated, \$3 million, \$2 million and \$49 million, respectively, at SDG&E, and \$4 million, \$3 million and \$1 million, respectively, at SoCalGas.

CALIFORNIA UTILITIES

CPUC General Rate Case

The CPUC uses GRC proceedings to set rates designed to allow the California Utilities to recover their reasonable operating costs and to provide the opportunity to realize their authorized rates of return on their investments.

2019 General Rate Case

On September 26, 2019, the CPUC issued a final decision in the 2019 GRC approving SDG&E's and SoCalGas' test year revenues for 2019 and attrition year adjustments for 2020 and 2021. This is the first GRC that includes revenues authorized for risk assessment mitigation phase activities.

The 2019 GRC FD adopts a test year 2019 revenue requirement of \$1,990 million for SDG&E's combined operations (\$1,590 million for its electric operations and \$400 million for its natural gas operations), which is \$213 million lower than the \$2,203 million that SDG&E had requested in its updated application. SDG&E's adopted 2019 revenue requirement represents an increase of \$107 million (5.70%) over its authorized 2018 revenue requirement.

The 2019 GRC FD adopts a test year 2019 revenue requirement of \$2,770 million for SoCalGas, which is \$167 million lower than the \$2,937 million that SoCalGas had requested in its updated application. SoCalGas' adopted 2019 revenue requirement represents an increase of \$314 million (12.80%) over its authorized 2018 revenue requirement.

The increases include separately authorized components for O&M and capital-related costs, as follows:

AUTHORIZED REVENUE REQUIREMENT INCREASES FOR 2020 AND 2021*(Dollars in millions)*

	2020 increase from 2019		2021 increase from 2020	
	Revenue increase	Percent increase	Revenue increase	Percent increase
SDG&E				
O&M	\$ 20	2.64%	\$ 19	2.47%
Capital-related costs	114	9.74	83	6.47
Total increase	\$ 134	6.74	\$ 102	4.83
SoCalGas:				
O&M	\$ 36	2.64%	\$ 34	2.40%
Capital-related costs	184	14.36	116	7.93
Total increase	\$ 220	7.92	\$ 150	5.00

The adopted revenue requirements associated with the period from January 1, 2019 through December 31, 2019 are being recovered in rates over a 24-month period beginning in January 2020. At December 31, 2019, SDG&E recorded an associated regulatory asset of \$111 million, with \$56 million as noncurrent, and SoCalGas recorded an associated regulatory asset of \$400 million, with \$200 million as noncurrent.

In January 2020, the CPUC issued a final decision implementing a four-year GRC cycle for California IOUs. The California Utilities were directed to file a petition for modification to revise their 2019 GRC to add two additional attrition years, resulting in a transitional five-year GRC period (2019-2023).

The 2019 GRC FD approves for the California Utilities the establishment of two-way liability insurance premium balancing accounts, including wildfire insurance premium costs based on a specific level of coverage. The 2019 GRC FD also permits the California Utilities to seek recovery of additional liability insurance coverage.

Pursuant to the 2016 GRC FD, SDG&E and SoCalGas each established a two-way income tax expense memorandum account to track, among other items, certain revenue variances resulting from certain differences between the income tax expense forecasted in the GRC and the income tax expense incurred from 2016 through 2018. SDG&E and SoCalGas recorded regulatory liabilities associated with the 2016 through 2018 tracked forecasting differences of \$86 million and \$89 million, respectively. The 2019 GRC FD clarifies that forecasting differences, which we previously included in this tracked activity, are not subject to tracking in the income tax expense memorandum account. Final resolution of the scope of the two-way income tax expense memorandum account for the 2016 through 2018 period is pending at the CPUC and could impact the disposition of these regulatory liabilities. We expect resolution in the first half of 2020.

The 2016 GRC FD revenue requirement was authorized using a federal income tax rate of 35%. As a result of the TCJA, the federal income tax rate became 21% effective January 1, 2018. Since SDG&E and SoCalGas continued to collect authorized revenues based on a 35% tax rate, SDG&E and SoCalGas recorded regulatory liabilities of \$88 million and \$75 million, respectively. Pursuant to the 2019 GRC FD, SDG&E and SoCalGas are refunding the regulatory balances over a 24-month period starting in January 2020. SDG&E also recorded a \$66 million regulatory liability at December 31, 2019, relating to its FERC jurisdictional rates, which it began refunding in June 2019.

CPUC Cost of Capital

In April 2019, SDG&E and SoCalGas filed separate applications with the CPUC to update their cost of capital effective January 1, 2020. SDG&E proposed to adjust its authorized capital structure by increasing the amount of its common equity from 52% to 56%. SDG&E also proposed to increase its authorized ROE from 10.2% to 14.3% (with the aggregate ROE proposal including a quantified premium for wildfire liability risk), and to increase its authorized return on rate base from 7.55% to 10.03%. In August 2019, SDG&E filed supplemental testimony to update its ROE request from 10.2% to 12.38% to reflect the impacts of the Wildfire Legislation, including a revised premium for wildfire liability risk, and its authorized return on rate base from 7.55% to 8.95%. SoCalGas proposed to adjust its authorized capital structure by increasing the amount of its common equity from 52% to 56%, its authorized ROE from 10.05% to 10.7% and its authorized return on rate base from 7.34% to 7.85%.

In December 2019, the CPUC approved the cost of capital and rate structures (shown in the table below) for SDG&E and SoCalGas that are effective January 1, 2020 and will remain in effect through December 31, 2022. SDG&E did not propose a 2020 cost of preferred equity in this proceeding. In January 2020, SDG&E filed an advice letter to continue the cost of preferred equity for test year 2020 at 6.22%, which is pending CPUC approval.

CPUC AUTHORIZED COST OF CAPITAL AND RATE STRUCTURE

SDG&E				SoCalGas		
Authorized weighting	Return on rate base	Weighted return on rate base		Authorized weighting	Return on rate base	Weighted return on rate base
45.25 %	4.59 %	2.08 %	Long-Term Debt	45.60 %	4.23 %	1.93 %
2.75	6.22	0.17	Preferred Stock	2.40	6.00	0.14
52.00	10.20	5.30	Common Equity	52.00	10.05	5.23
100.00 %		7.55 %		100.00 %		7.30 %

The CCM was reauthorized in the 2020 cost of capital proceeding to continue through 2022. The CCM benchmark rate for the 2020 cost of capital is the average monthly utility bond index, as published by Moody’s, for the 12-month period from October 2018 through September 2019. SDG&E’s CCM benchmark rate is 4.491%, based on Moody’s Baa- utility bond index, and SoCalGas’ CCM benchmark rate is 4.024%, based on Moody’s A- utility bond index. The index applicable to each utility is based on each utility’s credit rating.

The CCM benchmark rates for SDG&E and SoCalGas are the basis of comparison to determine if future measurement periods “trigger” the CCM. The 12 months ending September 2020 shall be the first “CCM Period” to determine if there has been a trigger at SDG&E or SoCalGas. The trigger occurs if the change in the applicable average Moody’s utility bond index relative to the CCM benchmark is larger than plus or minus 1.000%. Accordingly, if a change of more than plus or minus 1.000% occurs, SDG&E’s, SoCalGas’, or both utilities’ authorized ROE would be adjusted, upward or downward, by one half of the difference between the CCM benchmark and the 12-month average determined during the CCM Period. In addition, the authorized recovery rate for the respective utilities’ cost of debt and preferred stock would be adjusted to their respective actual weighted-average cost, with no change to the authorized capital structure. In the event of a CCM trigger, the CCM benchmark is also reestablished. These adjustments would become effective in authorized rates on January 1 of the year following the CCM trigger.

SDG&E

FERC Rate Matters and Cost of Capital

SDG&E files separately with the FERC for its authorized ROE on FERC-regulated electric transmission operations and assets.

SDG&E’s current estimated FERC return on rate base under the TO4 formula rate request filing is 7.51% based on its capital structure as follows:

FERC-AUTHORIZED COST OF CAPITAL AND RATE STRUCTURE – SDG&E

	Weighting	Return on rate base	Weighted return on rate base
Long-Term Debt	43.44 %	4.21 %	1.83 %
Common Equity	56.56	10.05	5.68
	100.00 %		7.51 %

FERC Formulaic Rate Filing

In October 2018, SDG&E submitted its TO5 filing to the FERC proposing, among other items, an increase to SDG&E’s current authorized FERC ROE from 10.05% to 11.20%. This proceeding establishes the transmission revenue requirement, including rate of return, for SDG&E’s FERC-regulated electric transmission operations and assets. On December 31, 2018, the FERC issued its order accepting and suspending SDG&E’s TO5 filing for five months, during which the existing TO4 rates remained in effect, and established hearing and settlement procedures. The suspension period ended on June 1, 2019, when the proposed TO5 rates took effect, subject to refund and the outcome of the rate filing. As a result, until a new ROE is authorized, the current ROE of 10.05% is the basis of SDG&E’s FERC-related revenue recognition.

In October 2019, SDG&E and all settling parties reached an agreement on all issues set for hearing in the proceeding. The agreement provides for a ROE of 10.60%, consisting of a base ROE of 10.10% plus an additional 50 bps for participation in the California ISO. SDG&E will refund the California ISO additional 50 bps of ROE as of the refund effective date (June 1, 2019) in this proceeding if the FERC issues an order ruling that California IOUs are no longer eligible for the additional California ISO

ROE. The agreement also includes the collection of additional FERC revenues of \$17 million to conclude a rate base matter, net of certain refunds to be paid to CPUC-jurisdictional customers. We expect a FERC order on the settlement terms in the first half of 2020.

When we receive a final decision, SDG&E expects to record the cumulative earnings effect of retroactive application to June 1, 2019 for any difference between the current ROE and the approved ROE.

SOCALGAS

Billing Practices OII

In May 2017, the CPUC issued an OII to determine whether SoCalGas violated any provisions of the California Public Utilities Code, General Orders, CPUC decisions, or other requirements pertaining to billing practices from 2014 through 2016. The CPUC examined the timeliness of monthly bills, extending the billing period for customers, and issuing estimated bills, including an examination of SoCalGas' gas tariff rules. In January 2019, the CPUC ordered SoCalGas to pay \$8 million in penalties, including \$3 million that was paid in July 2019 to California's general fund and \$5 million to be credited to customers that received delayed bills (greater than 45 days) in the form of a \$100 bill credit. SoCalGas filed an appeal of the CPUC's conclusions in the order, which, in April 2019, the CPUC denied. SoCalGas filed a rehearing request in May 2019, which is pending before the CPUC. The CPUC granted SoCalGas' request to delay distribution of the \$100 bill credit to customers until a final decision on the rehearing.

SEMPRA MEXICO

In July and December of 2018, the CRE adjusted Ecogas' natural gas distribution rates charged to end-users in 2014 through 2016. Ecogas recorded regulatory assets of \$7 million and \$5 million, respectively, for these tariff adjustments, which are recoverable in rates effective September 1, 2018 and February 1, 2019, respectively, through December 31, 2020.

NOTE 5. ACQUISITIONS, DIVESTITURES AND DISCONTINUED OPERATIONS

We consolidate assets acquired and liabilities assumed as of the purchase date and include earnings from acquisitions in consolidated earnings after the purchase date.

ACQUISITIONS

Sempra Texas Utilities

TTHC

In February 2020, Sempra Texas Intermediate Holding Company LLC, acquired an additional indirect 0.2% interest in Oncor through its acquisition of a 1% interest in TTHC from Hunt Strategic Utility Investment, L.L.C., including notes receivable due from TTHC with an aggregate outstanding balance of approximately \$5.5 million, for a total purchase price of approximately \$23 million in cash, bringing Sempra Energy's indirect ownership in Oncor to approximately 80.45%. TTHC owns 100% of TTI, which owns 19.75% of Oncor's outstanding membership interests.

Oncor Holdings

In March 2018, Sempra Energy completed the acquisition of an indirect, 100% interest in Oncor Holdings, which owned 80.03% of Oncor, and other EFH assets and liabilities unrelated to Oncor, pursuant to the Merger Agreement with EFH. Under the Merger Agreement, we paid Merger Consideration of \$9.45 billion in cash and an additional \$31 million representing an adjustment for dividends and payments pursuant to a tax sharing agreement with Oncor and Oncor Holdings. Also in March 2018, in a separate transaction, Sempra Energy, through its interest in Oncor Holdings, acquired an additional 0.22% of the outstanding membership interests in Oncor from OMI for \$26 million in cash, bringing Sempra Energy's indirect ownership in Oncor to 80.25%. TTI continues to own 19.75% of Oncor's outstanding membership interest.

Pursuant to the Merger Agreement, the reorganized EFH (renamed Sempra Texas Holdings Corp.) merged with an indirect subsidiary of Sempra Energy, with Sempra Texas Holdings Corp. continuing as the surviving company and an indirect, wholly

owned subsidiary of Sempra Energy. Sempra Texas Holdings Corp. wholly owns EFIH (renamed Sempra Texas Intermediate Holding Company LLC), which holds our 100% interest in Oncor Holdings. Other assets and liabilities unrelated to Oncor that were acquired with Sempra Texas Holdings Corp. have been subsumed into our parent organization, Parent and other.

Due to ring-fencing measures, existing governance mechanisms and commitments in effect, we do not have the power to direct the significant activities of Oncor Holdings and Oncor. Consequently, we account for our 100% ownership interest in Oncor Holdings as an equity method investment. See Note 6 for additional information about our equity method investment in Oncor Holdings and related ring-fencing measures.

In anticipation of the Merger, in January 2018, we completed registered public offerings of our common stock (including shares offered pursuant to forward sale agreements), series A preferred stock and long-term debt, as we discuss in Notes 7, 13 and 14. These offerings provided total initial net proceeds of approximately \$7.0 billion for partial funding of the Merger Consideration, of which approximately \$800 million was used to pay down commercial paper, pending the closing of the Merger.

In March 2018, to fund a portion of the Merger Consideration, we settled approximately \$900 million (net of underwriting discounts of \$16 million) of forward sales under the forward sale agreements entered into in connection with the public offering of common stock in January 2018 by delivery of 8,556,630 shares of newly issued Sempra Energy common stock, as we discuss in Note 14. We raised the remaining portion of the Merger Consideration through issuances of approximately \$2.6 billion in commercial paper with a weighted-average maturity of 47 days and a weighted-average interest rate of 2.2% per annum.

The total purchase price paid was comprised of the following:

- \$9,450 million of Merger Consideration;
- \$31 million adjustment for dividends and payments pursuant to a tax sharing agreement with Oncor and Oncor Holdings;
- \$26 million paid in a separate transaction to acquire an additional 0.22% of the outstanding membership interests in Oncor from OMI; and
- \$59 million of transaction costs included in the basis of our investment in Oncor Holdings.

We accounted for the Merger as an asset acquisition, as the equity method investment in Oncor Holdings represents substantially all of the fair value of the gross assets acquired. The following table sets forth the allocation of the total purchase price paid to the identifiable assets acquired and liabilities assumed.

PURCHASE PRICE ALLOCATION

(Dollars in millions)

	At March 9, 2018 ⁽¹⁾
Assets acquired:	
Accounts receivable – other, net	\$ 1
Due from unconsolidated affiliates	46
Investment in Oncor Holdings	9,227
Deferred income tax assets	287
Other noncurrent assets	109
Total assets acquired	9,670
Liabilities assumed:	
Other current liabilities	23
Pension and other postretirement benefit plan obligations	21
Deferred credits and other	58
Total liabilities assumed	102
Net assets acquired	\$ 9,568
Total purchase price paid	\$ 9,568

⁽¹⁾ In the fourth quarter of 2018, we received additional information regarding deferred income taxes related to the resolution of claims in EFH's emergence from bankruptcy as of the acquisition date. As a result, we recorded an adjustment to increase our investment in Oncor Holdings by \$64 million, decrease deferred income tax assets by \$66 million and decrease deferred credits and other liabilities by \$2 million. Also in the fourth quarter of 2018, we recorded \$2 million of additional purchase price paid related to additional transaction costs.

The fair value of the equity method investment in Oncor Holdings is primarily attributable to Oncor's business. Therefore, we considered the underlying assets and liabilities of Oncor when determining the fair value of our equity method investment. As a regulated entity, Oncor's rates are set and approved by the PUCT, and are designed to recover the cost of providing service and the opportunity to earn a reasonable return on its investments. Accordingly, Oncor applies the guidance under the provisions of U.S. GAAP governing rate-regulated operations. Under U.S. GAAP, regulation is viewed as being a characteristic (restriction) of

a regulated entity's assets and liabilities, and the impact of regulation is considered a fundamental input to measuring the fair value of Oncor's assets and liabilities. Under this premise, we concluded that the carrying values of all assets and liabilities recoverable through rates are representative of their fair values.

In May 2019, Oncor completed the acquisition of 100% of the issued and outstanding shares of InfraREIT and 100% of the limited partnership units of its subsidiary, InfraREIT Partners, LP, pursuant to the InfraREIT Merger Agreement. Under the InfraREIT Merger Agreement, Oncor paid merger consideration of \$1,275 million, or \$21 per share, plus certain transaction costs incurred by InfraREIT and its subsidiaries and paid by Oncor on their behalf, including \$40 million for a management agreement termination fee. In connection with and immediately after the closing, Oncor also extinguished all of InfraREIT's outstanding debt (totaling \$953 million) by repaying an aggregate principal amount of \$602 million on behalf of InfraREIT's subsidiaries (using proceeds from a term loan and issuances of commercial paper), and exchanging an aggregate principal amount of \$351 million of secured senior notes issued by InfraREIT subsidiaries for secured senior notes issued by Oncor. Oncor received a total of \$1,330 million in capital contributions from Sempra Energy and certain indirect equity holders of TTI, proportionate to their respective ownership interest in Oncor, to fund the purchase price and certain expenses.

As part of Oncor's acquisition of interests in InfraREIT, immediately prior to closing the InfraREIT Merger Agreement, SDTS accepted and assumed certain assets and liabilities of Sharyland Utilities, LP in exchange for certain SDTS assets, pursuant to the Asset Exchange Agreement. SDTS received real property and other assets used in the electric transmission and distribution business in Central, North and West Texas, as well as the equity interests in GS Project Entity, LLC (a wholly owned subsidiary of Sharyland Utilities, LP), and Sharyland Utilities, LP received real property and other assets used in the electric transmission and distribution business near the Texas-Mexico border. Pursuant to the Asset Exchange Agreement, immediately prior to the completion of the exchange, SDTS became a wholly owned, indirect subsidiary of InfraREIT Partners, LP.

Sharyland Holdings

On May 16, 2019, Sempra Energy acquired an indirect, 50% interest in Sharyland Holdings for \$95 million (net of \$7 million in post-closing adjustments) pursuant to the Securities Purchase Agreement. In connection with and prior to the consummation of the Securities Purchase Agreement, Sharyland Holdings owned 100% of the membership interests in Sharyland Utilities, LP and Sharyland Utilities, LP converted into a limited liability company, named Sharyland Utilities, L.L.C. We account for our interest in Sharyland Holdings as an equity method investment.

Sempra Mexico

Ductos y Energéticos del Norte, S. de R.L. de C.V.

On November 15, 2017, IEnova completed the asset acquisition of PEMEX's 50% interest in DEN, a JV that holds a 50% interest in the Los Ramones Norte pipeline through TAGJV, for a purchase price of \$165 million (exclusive of \$18 million of cash and cash equivalents acquired), plus the assumption of \$96 million of short-term debt. This acquisition increased IEnova's ownership interest in DEN through IEnova Pipelines from 50% to 100%, and increased IEnova's indirect ownership interest in TAGJV from 25% to 50%. IEnova Pipelines previously accounted for its 50% interest in DEN as an equity method investment. At closing, DEN became a wholly owned, consolidated subsidiary of IEnova Pipelines. DEN will continue to account for its interest in TAGJV as an equity method investment. This acquisition also included a \$66 million intangible asset that represents a favorable O&M agreement, which has an amortization period of 23 years.

Sempra Renewables

On July 10, 2017, Sempra Renewables paid \$124 million in cash for an asset acquisition of a portfolio of four solar projects located in Fresno County, California, that were under construction. Completed in 2018, the facilities were sold to a subsidiary of Con Ed in December 2018, as we discuss below.

Sempra South American Utilities

Compañía Transmisora del Norte Grande S.A.

On December 18, 2018, Chilquinta Energía acquired a 100% interest in Compañía Transmisora del Norte Grande S.A. through a sales and purchase agreement with AES Gener S.A. and its subsidiary Sociedad Eléctrica Angamos S.A. We completed the acquisition for a purchase price of \$226 million and paid \$208 million (net of \$18 million cash acquired) with available cash on hand at our former Sempra South American Utilities segment, which is presented in discontinued operations.

We accounted for this business combination using the acquisition method of accounting. At the acquisition date, we allocated the \$208 million in cash paid to the identifiable assets acquired (\$231 million) and liabilities assumed (\$43 million) based on their

respective fair values, with the excess recognized as goodwill (\$38 million), which are included below in the “Assets Held for Sale in Discontinued Operations” table. We consider the purchase price allocation at the acquisition date to be final.

DIVESTITURES

In June 2018, our board of directors approved a plan to divest certain non-utility natural gas storage assets in the southeast U.S., and all our U.S. wind and U.S. solar assets (collectively, the Assets). As a result, we recorded impairment charges totaling \$1.5 billion (\$900 million after tax and NCI) in June 2018, which included \$1.3 billion (\$755 million after tax and NCI) at Sempra LNG, included in Impairment Losses on Sempra Energy’s Consolidated Statements of Operations, and \$200 million (\$145 million after tax) at Sempra Renewables, included in Equity Earnings on Sempra Energy’s Consolidated Statements of Operations. In December 2018, we reduced the impairment of \$1.3 billion recorded at Sempra LNG in June 2018 by \$183 million (\$126 million after tax and NCI) as a result of the sales agreement for certain storage assets described below, resulting in a total impairment charge of \$1.1 billion (\$629 million after tax and NCI) for the year ended December 31, 2018. These impairment charges primarily represented an adjustment of the related assets’ carrying values to estimated fair values, less costs to sell when applicable, which we discuss in Notes 6 and 12.

Sempra Renewables

On December 13, 2018, Sempra Renewables completed the sale of the following assets to a subsidiary of Con Ed for cash proceeds of \$1.6 billion:

- its operating solar assets, including assets that we owned through JVs or through tax equity arrangements (other than those interests held by tax equity investors);
- its solar and battery storage development projects; and
- its 50% interest in the Broken Bow 2 wind generation facility.

In 2018, we recognized a pretax gain of \$513 million (\$367 million after tax) in Gain on Sale of Assets on Sempra Energy’s Consolidated Statement of Operations.

The following table summarizes the deconsolidation of these subsidiaries in 2018.

DECONSOLIDATION OF SUBSIDIARIES

(Dollars in millions)

	Certain subsidiaries of Sempra Renewables
	At December 13, 2018
Proceeds from sale, net of transaction costs	\$ 1,585
Cash	(7)
Restricted cash	(7)
Other current assets	(14)
Property, plant and equipment, net	(1,303)
Other investments	(329)
Other long-term assets	(24)
Current liabilities	8
Long-term debt	70
Asset retirement obligations	52
Other long-term liabilities	5
Noncontrolling interests	486
Accumulated other comprehensive income	(9)
Gain on sale	\$ 513

On April 22, 2019, Sempra Renewables completed the sale of its remaining wind assets and investments to AEP for \$569 million, net of transaction costs, and recorded a \$61 million (\$45 million after tax and NCI) gain, which is included in Gain on Sale of Assets on the Consolidated Statements of Operations. Upon completion of the sale, remaining nominal business activities at Sempra Renewables were subsumed into Parent and other and the Sempra Renewables segment ceased to exist.

Sempra LNG

On February 7, 2019, Sempra LNG completed the sale of its non-utility natural gas storage assets in the southeast U.S. (comprised of Mississippi Hub and Bay Gas), which we classified as held for sale at December 31, 2018, to an affiliate of ArcLight Capital Partners and received cash proceeds of \$322 million, net of transaction costs. In January 2019, Sempra LNG completed the sale of other non-utility assets for \$5 million.

DISCONTINUED OPERATIONS

On January 25, 2019, our board of directors approved a plan to sell our South American businesses. We determined that these businesses, which previously constituted the Sempra South American Utilities segment, and certain activities associated with those businesses, met the held-for-sale criteria. These businesses are presented as discontinued operations, as the planned sales represent a strategic shift that will have a major effect on our operations and financial results. We do not plan to have significant continuing involvement in or be able to exercise significant influence on the operating or financial policies of these operations after they are sold. Accordingly, the results of operations, financial position and cash flows for these businesses have been reclassified to discontinued operations for all periods presented.

Discontinued operations that were previously in the Sempra South American Utilities segment include our 100% interest in Chilquinta Energía in Chile, our 83.6% interest in Luz del Sur in Peru and our interests in two energy-services companies, Tecnoed and Tecsur, which provide electric construction and infrastructure services to Chilquinta Energía and Luz del Sur, respectively, as well as third parties.

On September 27, 2019, we entered into a Purchase and Sale Agreement with China Yangtze Power International (Hongkong) Co., Limited to sell our equity interests in our Peruvian businesses, including our 83.6% interest in Luz del Sur and its indirect ownership interest in Tecsur, for an aggregate base purchase price of \$3.59 billion, subject to customary closing adjustments for working capital and changes in net indebtedness. The sale is subject to various conditions to closing, including approvals from the Peruvian anti-trust authority and the Bermuda Monetary Authority. We expect the sale to close in the first half of 2020.

On October 12, 2019, we entered into a Purchase and Sale Agreement with State Grid International Development Limited to sell our equity interests in our Chilean businesses, including our 100% interest in Chilquinta Energía and Tecnoed and our 50% interest in Eletrans, for an aggregate base purchase price of \$2.23 billion, subject to customary adjustments for working capital and changes in net indebtedness and other adjustments. Chilquinta Energía also agreed to purchase the remaining 50% interest in Eletrans from Sociedad Austral de Electricidad S.A., contingent on the sale of our Chilean businesses to State Grid International Development Limited. This acquisition by Chilquinta Energía would result in State Grid International Development Limited acquiring 100% of Eletrans, which we do not expect will have a significant economic impact on the sale of our Chilean businesses. The sale of our Chilean businesses is subject to various conditions to closing, including approval by the Chilean anti-trust authority, certain Chinese regulatory approvals and approval by the Bermuda Monetary Authority, but is not subject to Chilquinta Energía purchasing the remaining 50% interest in Eletrans. We expect the sale to close in the first half of 2020.

Summarized results from discontinued operations were as follows:

DISCONTINUED OPERATIONS

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Revenues	\$ 1,614	\$ 1,585	\$ 1,567
Cost of sales	(1,012)	(1,041)	(1,060)
Operating expenses	(159)	(206)	(202)
Interest and other	(11)	(6)	(2)
Income before income taxes and equity earnings	432	332	303
Income tax expense	(72)	(145)	(338)
Equity earnings	3	1	4
Income (loss) from discontinued operations, net of income tax	363	188	(31)
Earnings attributable to noncontrolling interests	(35)	(32)	(27)
Earnings (losses) from discontinued operations attributable to common shares	\$ 328	\$ 156	\$ (58)

The following table summarizes the carrying amounts of the major classes of assets and related liabilities classified as held for sale in discontinued operations.

ASSETS HELD FOR SALE IN DISCONTINUED OPERATIONS

(Dollars in millions)

	December 31,	
	2019	2018
Cash and cash equivalents	\$ 74	\$ 88
Restricted cash ⁽¹⁾	1	—
Accounts receivable, net	303	315
Due from unconsolidated affiliates	2	2
Inventories	36	38
Other current assets	29	16
Current assets	<u>\$ 445</u>	<u>\$ 459</u>
Due from unconsolidated affiliates	\$ 54	\$ 44
Goodwill and other intangible assets	801	819
Property, plant and equipment, net	2,618	2,357
Other noncurrent assets	40	39
Noncurrent assets	<u>\$ 3,513</u>	<u>\$ 3,259</u>
Short-term debt	\$ 52	\$ 55
Accounts payable	201	176
Current portion of long-term debt and finance leases	85	29
Other current liabilities	106	108
Current liabilities	<u>\$ 444</u>	<u>\$ 368</u>
Long-term debt and finance leases	\$ 702	\$ 708
Deferred income taxes	284	250
Other noncurrent liabilities	66	55
Noncurrent liabilities	<u>\$ 1,052</u>	<u>\$ 1,013</u>

⁽¹⁾ Primarily represents funds held in accordance with Peruvian tax law.

At December 31, 2019 and 2018, \$551 million and \$506 million, respectively, of cumulative foreign currency translation adjustments related to our South American businesses are included in AOCI.

NOTE 6. INVESTMENTS IN UNCONSOLIDATED ENTITIES

We generally account for investments under the equity method when we have significant influence over, but do not have control of, these entities. Equity earnings and losses, both before and net of income tax, are combined and presented as Equity Earnings on the Consolidated Statements of Operations.

Our equity method investments include various domestic and foreign entities. Our domestic equity method investees are typically partnerships that are pass-through entities for income tax purposes and therefore they do not record income tax. Sempra Energy's income tax on earnings from these equity method investees, other than Oncor Holdings as we discuss below, is included in Income Tax (Expense) Benefit on the Consolidated Statement of Operations. Our foreign equity method investees are corporations whose operations are generally taxable on a standalone basis in the countries in which they operate, and we recognize our equity in such income or loss net of investee income tax. See Note 8 for information on how equity earnings and losses before income taxes are factored into the calculations of our pretax income or loss and ETR.

We provide the carrying values of our investments and earnings (losses) on these investments in the following tables.

EQUITY METHOD AND OTHER INVESTMENT BALANCES

(Dollars in millions)

	Percent ownership		December 31,	
	December 31,		December 31,	
	2019	2018	2019	2018
Sempra Texas Utilities:				
Oncor Holdings ⁽¹⁾	100%	100%	\$ 11,519	\$ 9,652
Sempra Texas Utilities:				
Sharyland Holdings ⁽²⁾	50	—	\$ 100	\$ —
Sempra Mexico:				
Energia Sierra Juárez ⁽³⁾	50	50	39	43
IMG JV ⁽⁴⁾	40	40	337	328
TAG JV ⁽⁵⁾	50	50	365	376
Sempra Renewables:				
Auwahi Wnd	—	50	—	38
Cedar Creek 2 Wnd	—	50	—	69
Flat Ridge 2 Wnd ⁽⁶⁾	—	50	—	82
Fowler Ridge 2 Wnd	—	50	—	45
Mehoopany Wnd ⁽⁷⁾	—	50	—	57
Sempra LNG				
Cameron LNG JV ⁽⁸⁾	50.2	50.2	1,256	1,271
Total other equity method investments			2,097	2,309
Other			6	11
Total other investments			\$ 2,103	\$ 2,320

⁽¹⁾ The carrying value of our equity method investment is \$2,823 million and \$2,814 million higher than the underlying equity in the net assets of the investee at December 31, 2019 and 2018, respectively, due to \$2,868 million of equity method goodwill and \$69 million in basis differences in AOCI, offset by \$114 million at December 31, 2019 and \$123 million at December 31, 2018 due to a tax sharing liability to TTI under the tax sharing agreement.

⁽²⁾ The carrying value of our equity method investment is \$42 million higher than the underlying equity in the net assets of the investee due to equity method goodwill.

⁽³⁾ The carrying value of our equity method investment is \$12 million higher than the underlying equity in the net assets of the investee due to the remeasurement of our retained investment to fair value in 2014.

⁽⁴⁾ The carrying value of our equity method investment is \$5 million higher than the underlying equity in the net assets of the investee due to guarantees.

⁽⁵⁾ The carrying value of our equity method investment is \$130 million higher than the underlying equity in the net assets of the investee due to equity method goodwill.

⁽⁶⁾ The carrying value of our equity method investment at December 31, 2018 was \$169 million lower than the underlying equity in the net assets of the investee due to an other-than-temporary impairment recorded in 2018.

⁽⁷⁾ The carrying value of our equity method investment at December 31, 2018 was \$31 million lower than the underlying equity in the net assets of the investee due to an other-than-temporary impairment recorded in 2018.

⁽⁸⁾ The carrying value of our equity method investment is \$263 million and \$246 million higher than the underlying equity in the net assets of the investee at December 31, 2019 and 2018, respectively, primarily due to guarantees, which we discuss below, interest capitalized on the investment prior to the JV commencing its planned principal operations in August 2019 and amortization of guarantee fees and capitalized interest thereafter.

EARNINGS (LOSSES) FROM EQUITY METHOD INVESTMENTS*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
EARNINGS (LOSSES) RECORDED BEFORE INCOME TAX⁽¹⁾:			
Sempra Texas Utilities:			
Sharyland Holdings	\$ 2	\$ —	\$ —
Sempra Renewables:			
Wind:			
Auwahi Wind	—	3	5
Broken Bow 2 Wind	—	(2)	(2)
Cedar Creek 2 Wind	—	(1)	(2)
Flat Ridge 2 Wind ⁽²⁾	(3)	(178)	(13)
Fowler Ridge 2 Wind	5	3	4
Mehoopany Wind ⁽²⁾	1	(30)	(1)
Solar:			
California solar partnership	—	8	7
Copper Mountain Solar 2	—	5	5
Copper Mountain Solar 3	—	8	8
Mesquite Solar 1	—	18	18
Other	2	(3)	—
Sempra LNG:			
Cameron LNG JV	24	—	5
Parent and other:			
RBS Sempra Commodities ⁽²⁾	—	(67)	—
Other	(1)	—	—
	30	(236)	34
EARNINGS (LOSSES) RECORDED NET OF INCOME TAX:			
Sempra Texas Utilities:			
Oncor Holdings	526	371	—
Sempra Mexico:			
DEN	—	—	(13)
Energía Sierra Juárez	2	2	—
IMG JV	9	29	45
TAG JV	13	9	6
	550	411	38
Total	\$ 580	\$ 175	\$ 72

⁽¹⁾ We provide our ETR calculation in Note 8.⁽²⁾ Losses from equity method investment in 2018 include an other-than-temporary impairment charge, which we discuss below.

We disclose distributions received from our investments, by segment, in the table below.

DISTRIBUTIONS FROM INVESTMENTS*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
Sempra Texas Utilities	\$ 246	\$ 149	\$ —
Sempra Mexico	2	—	—
Sempra Renewables	1	63	65
Parent and other	7	—	—
Total	256	212	65

At December 31, 2019 and 2018, our share of the undistributed earnings of equity method investments was \$634 million and \$332 million, respectively, including \$501 million at December 31, 2019 in undistributed earnings from investments for which we have more than 50% equity interests.

SEMPRA TEXAS UTILITIES

Oncor Holdings

As we discuss in Note 5, on March 9, 2018, we completed the acquisition of an indirect, 100% interest in Oncor Holdings, which, at December 31, 2019, owns an 80.25% interest in Oncor. Sempra Energy does not control Oncor Holdings or Oncor, and the ring-fencing measures, governance mechanisms and commitments in effect limit our ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. We also have limited representation on the Oncor Holdings and Oncor boards of directors. As we do not have the power to direct the significant activities of Oncor Holdings and Oncor, we account for our 100% ownership interest in Oncor Holdings as an equity method investment.

Oncor is a domestic partnership for U.S. federal income tax purposes and is not included in the consolidated income tax return of Sempra Energy. Rather, only our pretax equity earnings from our investment in Oncor Holdings (a disregarded entity for tax purposes) are included in our consolidated income tax return. A tax sharing agreement with TTI, Oncor Holdings and Oncor provides for the calculation of an income tax liability substantially as if Oncor Holdings and Oncor were taxed as corporations and requires tax payments determined on that basis. While partnerships are not subject to income taxes, in consideration of the tax sharing agreement and Oncor being subject to the provisions of U.S. GAAP governing rate-regulated operations, Oncor recognizes amounts determined under cost-based regulatory rate-setting processes (with such costs including income taxes), as if it were taxed as a corporation. As a result, since Oncor Holdings consolidates Oncor, we recognize equity earnings from our investment in Oncor Holdings net of its recorded income tax.

We provide summarized income statement and balance sheet information for Oncor Holdings in the following table.

SUMMARIZED FINANCIAL INFORMATION – ONCOR HOLDINGS

(Dollars in millions)

	Year ended December 31, 2019		March 9 - December 31, 2018	
Operating revenues	\$	4,347	\$	3,347
Operating expense		(3,135)		(2,434)
Income from operations		1,212		913
Interest expense		(375)		(285)
Income tax expense		(131)		(119)
Net income		643		455
Noncontrolling interest held by TTI		(129)		(94)
Earnings attributable to Sempra Energy		514		360

	At December 31,			
	2019		2018	
Current assets	\$	913	\$	772
Noncurrent assets		26,012		21,980
Current liabilities		1,626		2,217
Noncurrent liabilities		14,125		11,756
Noncontrolling interest held by TTI		2,473		1,951

In 2019, we contributed cash of \$1,587 million to Oncor, including \$1,067 million to fund Oncor's May 2019 acquisition of interests in InfraREIT and certain acquisition-related expenses. In 2018, we contributed \$230 million in cash to Oncor in accordance with the terms of the Merger Agreement, which enabled Oncor to achieve its required capital structure calculated for regulatory purposes. In 2019 and 2018, Oncor Holdings distributed to Sempra Energy \$246 million and \$149 million, respectively, in dividends and \$10 million and \$18 million, respectively, in tax sharing payments.

Sharyland Holdings

As we discuss in Note 5, on May 16, 2019, we acquired an indirect, 50% interest in Sharyland Holdings, which owns a 100% interest in Sharyland Utilities, for \$95 million, net of \$7 million in post-closing adjustments, which we account for as an equity method investment. In 2019, we invested cash of \$3 million in Sharyland Holdings.

SEMPRA MEXICO

IMG JV

IEnova has a 40% interest in IMGJV, a JV with a subsidiary of TC Energy, and accounts for its interest as an equity method investment. IMGJV owns and operates the Sur de Texas-Tuxpan natural gas marine pipeline, which is fully contracted under a 35-year natural gas transportation service contract with the CFE and commenced commercial operation in September 2019. In 2018 and 2017, Sempra Mexico invested cash of \$80 million and \$72 million, respectively, in IMGJV.

DEN and TAG JV

On November 15, 2017, IEnova acquired the remaining 50% interest in DEN, and DEN became a consolidated subsidiary. Since the acquisition date, IEnova accounts for DEN's 50% interest in TAGJV as an equity method investment. We discuss this acquisition in Note 5.

SEMPRA RENEWABLES

As a result of the plan of sale, Sempra Renewables recorded an other-than-temporary impairment on certain of our wind equity method investments totaling \$200 million in 2018, which is included in Equity Earnings on Sempra Energy's Consolidated Statement of Operations. Sempra Renewables completed the sales of all its operating solar assets, including its solar equity method investments and one wind equity method investment, in December 2018 and its remaining wind assets and investments in April 2019. We discuss these divestitures further in Note 5.

In 2018, Sempra Renewables invested cash of \$5 million in its unconsolidated JVs.

SEMPRA LNG

Cameron LNG JV

Cameron LNG JV was formed in October 2014 among Sempra Energy and three project partners, TOTAL S.A., Mitsui & Co., Ltd., and Japan LNG Investment, LLC, a company jointly owned by Mitsubishi Corporation and Nippon Yusen Kabushiki Kaisha. We account for our 50.2% investment in Cameron LNG JV under the equity method.

Cameron LNG JV is constructing a three-train natural gas liquefaction export facility with a nameplate capacity of 13.9 Mtpa of LNG, with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. In August 2019, the first of three trains commenced commercial operation under the JV's tolling agreements. Prior to commencing commercial operation, Sempra LNG capitalized interest of \$33 million in 2019 and \$47 million in each of 2018 and 2017 related to this equity method investment. In 2019, 2018 and 2017, Sempra LNG invested cash of \$77 million, \$228 million and \$1 million, respectively, in Cameron LNG JV.

Cameron LNG JV Financing

General. In August 2014, Cameron LNG JV entered into finance documents (collectively, Loan Facility Agreements) for senior secured financing in an initial aggregate principal amount of up to \$7.4 billion under three debt facilities provided by the Japan Bank for International Cooperation (JBIC) and 29 international commercial banks, some of which will benefit from insurance coverage provided by Nippon Export and Investment Insurance (NEXI).

The Loan Facility Agreements and related finance documents provide senior secured term loans with a maturity date of July 15, 2030. The proceeds of the loans are being used for financing the cost of development and construction of the three-train Cameron LNG project. The Loan Facility Agreements and related finance documents contain customary representations and affirmative and negative covenants for project finance facilities of this kind with the lenders of the type participating in the Cameron LNG JV financing.

In December 2019, Cameron LNG JV refinanced \$3.0 billion of the uncovered bank facility portion of the Loan Facility Agreements in a private placement bond offering. The newly issued senior secured notes bear interest at a fixed weighted-average rate of 3.39% and have a weighted-average tenor of 15.4 years at December 31, 2019.

Interest. The weighted-average all-in cost of the loans that remain outstanding under the original Loan Facility Agreements (and based on certain assumptions as to timing of drawdown) is 0.98% per annum over LIBOR prior to financial completion of the project and 1.22% per annum over LIBOR following financial completion of the project. The original Loan Facility Agreements required Cameron LNG JV to hedge 50% of outstanding borrowings to fix the interest rate, beginning in 2016. The hedges are to

remain in place until the debt principal has been amortized by 50%. In November 2014, Cameron LNG JV entered into floating-to-fixed interest rate swaps for approximately \$3.7 billion notional amount, resulting in an effective fixed rate of 3.19% for the LIBOR component of the interest rate on the loans. In June 2015, Cameron LNG JV entered into additional floating-to-fixed interest rate swaps effective starting in 2020, for approximately \$1.5 billion notional amount, resulting in an effective fixed rate of 3.32% for the LIBOR component of the interest rate on the loans. In December 2019, approximately \$790 million of the \$1.5 billion notional amount was terminated as a result of the refinancing, resulting in an effective fixed rate of 3.26% for the LIBOR component of the interest rate on the remaining loans outstanding.

The weighted-average all-in cost of the loans outstanding under the original Loan Facility Agreements and the newly issued senior secured notes is 3.72%.

Guarantees. In August 2014 and December 2019, Sempra Energy entered into agreements for the benefit of all of Cameron LNG JV's creditors under the original Loan Facility Agreements and the newly issued senior secured notes, respectively. Pursuant to these agreements, Sempra Energy has severally guaranteed 50.2% of Cameron LNG JV's obligations under the original Loan Facility Agreements and the newly issued senior secured notes, or a maximum amount of \$4.0 billion. Guarantees for the remaining 49.8% of Cameron LNG JV's senior secured financing have been provided by the other project owners. Sempra Energy's agreements and guarantees will terminate upon financial completion of the three-train Cameron LNG project, which is subject to satisfaction of certain conditions, including all three trains achieving commercial operations and meeting certain operational performance tests. We expect the project to achieve financial completion and the guarantees to be terminated approximately nine months after all three trains achieve commercial operation. Sempra Energy recorded a liability of \$82 million in October 2014 for the fair value of its obligations associated with the original Loan Facility Agreements, which constitute guarantees. This liability was fully amortized at December 31, 2019. Sempra Energy recorded a liability of \$3 million in December 2019 for the fair value of its obligations associated with Cameron LNG JV's newly issued senior secured notes, which also constitute guarantees. This liability will be reduced on a straight-line basis over the duration of the guarantees by increasing our investment in Cameron LNG JV.

In August 2014, Sempra Energy and the other project owners entered into a transfer restrictions agreement with Société Générale, as intercreditor agent for the lenders under the Loan Facility Agreements. Pursuant to the transfer restriction agreement, Sempra Energy agreed to certain restrictions on its ability to dispose of Sempra Energy's indirect fully diluted economic and beneficial ownership interests in Cameron LNG JV. These restrictions vary over time. Prior to financial completion of the three-train Cameron LNG project, Sempra Energy must retain 37.65% of such interest in Cameron LNG JV. Starting six months after financial completion of the three-train Cameron LNG project, Sempra Energy must retain at least 10% of the indirect fully diluted economic and beneficial ownership interest in Cameron LNG JV. In addition, at all times, a Sempra Energy controlled (but not necessarily wholly owned) subsidiary must directly own 50.2% of the membership interests of Cameron LNG JV.

Events of Default. Cameron LNG JV's Loan Facility Agreements and related finance documents contain events of default customary for such financings, including events of default for: failure to pay principal and interest on the due date; insolvency of Cameron LNG JV; abandonment of the project; expropriation; unenforceability or termination of the finance documents; and a failure to achieve financial completion of the project by a financial completion deadline date of September 30, 2021 (with up to an additional 365 days extension beyond such date permitted in cases of force majeure). A delay in construction that results in a failure to achieve financial completion of the project by this financial completion deadline date would therefore result in an event of default under Cameron LNG JV's financing and a potential demand on Sempra Energy's guarantees.

Security. To support Cameron LNG JV's obligations under its debt agreements, Cameron LNG JV has granted security over all of its assets, subject to customary exceptions, and all equity interests in Cameron LNG JV have been pledged to HSBC Bank USA, National Association, as security trustee for the benefit of all of Cameron LNG JV's creditors. As a result, an enforcement action by the lenders taken in accordance with the finance documents could result in the exercise of such security interests by the lenders and the loss of ownership interests in Cameron LNG JV by Sempra Energy and the other project partners.

The security trustee under Cameron LNG JV's financing can demand that a payment be made by Sempra Energy under its guarantees of Sempra Energy's 50.2% share of senior debt obligations due and payable either on the date such amounts were due from Cameron LNG JV (taking into account cure periods) in the event of a failure by Cameron LNG JV to pay such senior debt obligations when they become due or within 10 business days in the event of an acceleration of senior debt obligations under the terms of the finance documents. If an event of default occurs under the Sempra Energy completion agreement, the security trustee can demand that Sempra Energy purchase its 50.2% share of all then outstanding senior debt obligations within five business days (other than in the case of a bankruptcy default, which is automatic).

RBS SEMPRA COMMODITIES

RBS Sempra Commodities is a United Kingdom limited liability partnership formed by Sempra Energy and RBS in 2008 to own and operate the commodities-marketing businesses previously operated through wholly owned subsidiaries of Sempra Energy. We and RBS sold substantially all of the partnership's businesses and assets in four separate transactions completed in 2010 and 2011. Since 2011, our investment balance has reflected our share of the remaining partnership assets, including amounts retained by the partnership to help offset unanticipated future general and administrative costs necessary to complete the dissolution of the partnership and the distribution of the partnership's remaining assets, if any. We account for our investment in RBS Sempra Commodities under the equity method.

In September 2018, we fully impaired our remaining equity method investment in RBS Sempra Commodities by recording a charge of \$65 million in Equity Earnings on Sempra Energy's Consolidated Statement of Operations. We discuss matters related to RBS Sempra Commodities further in "Other Litigation" in Note 16.

SUMMARIZED FINANCIAL INFORMATION

We present summarized financial information below, aggregated for all other equity method investments (excluding Oncor Holdings) for the periods in which we were invested in the entities. The amounts below represent the results of operations and aggregate financial position of 100% of each of Sempra Energy's other equity method investments.

SUMMARIZED FINANCIAL INFORMATION – OTHER EQUITY METHOD INVESTMENTS

(Dollars in millions)

	Years ended December 31,		
	2019 ⁽¹⁾	2018 ⁽²⁾	2017 ⁽³⁾
Gross revenues	\$ 798	\$ 706	\$ 833
Operating expense	(372)	(609)	(585)
Income from operations	426	97	248
Interest expense	(401)	(322)	(219)
Net income (loss)/Earnings (losses) ⁽⁴⁾	85	(36)	108
		At December 31,	
		2019 ⁽¹⁾	2018 ⁽²⁾
Current assets	\$	1,124	\$ 564
Noncurrent assets		15,039	14,558
Current liabilities		1,232	801
Noncurrent liabilities		11,438	9,966

⁽¹⁾ On April 22, 2019, Sempra Renewables sold its remaining wind assets and investments to AEP. As of April 22, 2019, these wind assets and investments are no longer equity method investments.

⁽²⁾ On December 13, 2018, Sempra Renewables sold all its operating solar assets, including its solar equity method investments, and its 50% interest in the Broken Bow 2 wind power generation facility to a subsidiary of Con Ed. As of December 13, 2018, the solar equity method investments and Broken Bow 2 are no longer equity method investments.

⁽³⁾ On November 15, 2017, IEnova completed the asset acquisition of PEMEX's 50% interest in DEN, increasing its ownership percentage to 100%. As of November 15, 2017, DEN is no longer an equity method investment.

⁽⁴⁾ Except for our investments in Mexico, there was no income tax recorded by the entities, as they are primarily domestic partnerships.

NOTE 7. DEBT AND CREDIT FACILITIES

LINES OF CREDIT

Primary U.S. Committed Lines of Credit

At December 31, 2019, Sempra Energy Consolidated had an aggregate of \$6.7 billion in four primary U.S. committed lines of credit, which provide liquidity and support commercial paper.

PRIMARY U.S. COMMITTED LINES OF CREDIT*(Dollars in millions)*

	At December 31, 2019		
	Total facility	Commercial paper outstanding ⁽¹⁾	Available unused credit
Sempra Energy ⁽²⁾	\$ 1,250	\$ —	1,250
Sempra Global ⁽³⁾	3,185	(1,624)	1,561
SDG&E ⁽³⁾⁽⁴⁾	1,500	(80)	1,420
SoCalGas ⁽³⁾⁽⁴⁾	750	(630)	120
Total	\$ 6,685	\$ (2,334)	\$ 4,351

⁽¹⁾ Because the commercial paper programs are supported by these lines, we reflect the amount of commercial paper outstanding as a reduction to the available unused credit.

⁽²⁾ The facility also provides for issuance of \$200 million of letters of credit on behalf of Sempra Energy with the amount of borrowings otherwise available under the facility reduced by the amount of outstanding letters of credit. Subject to obtaining commitments from existing or new lenders and satisfaction of other specified conditions, Sempra Energy has the right to increase the letter of credit commitment up to \$500 million. No letters of credit were outstanding at December 31, 2019.

⁽³⁾ Commercial paper outstanding is before reductions of unamortized discount of \$3 million at Sempra Global and negligible amounts at SDG&E and SoCalGas.

⁽⁴⁾ The facility also provides for issuance of \$100 million of letters of credit on behalf of the borrowing utility with the amount of borrowings otherwise available under the facility reduced by the amount of outstanding letters of credit. Subject to obtaining commitments from existing or new lenders and satisfaction of other specified conditions, the borrowing utility has the right to increase the letter of credit commitment up to \$250 million. No letters of credit were outstanding at December 31, 2019.

The principal terms of the primary U.S. committed lines of credit in the table above include the following:

- Each is a 5-year syndicated revolving credit agreement expiring in May 2024.
- Citibank N.A. serves as administrative agent for the Sempra Energy and Sempra Global facilities and JPMorgan Chase Bank, N.A. serves as administrative agent for the SDG&E and SoCalGas facilities.
- Each facility has a syndicate of 23 lenders. No single lender has greater than a 6% share in any facility.
- Borrowings bear interest at benchmark rates plus a margin that varies with Sempra Energy's credit ratings in the case of the Sempra Energy and Sempra Global lines of credit, and with the borrowing utility's credit rating in the case of SDG&E's and SoCalGas' lines of credit.
- Sempra Energy, SDG&E and SoCalGas each must maintain a ratio of indebtedness to total capitalization (as defined in each of the applicable credit facilities) of no more than 65% at the end of each quarter. At December 31, 2019, each entity was in compliance with this ratio and all other financial covenants under its respective credit facility.
- Sempra Energy guarantees Sempra Global's obligations under its credit facility.

Foreign Committed Lines of Credit

Our foreign operations in Mexico have additional general-purpose credit facilities aggregating \$1.9 billion at December 31, 2019. The principal terms of these credit facilities are described below.

FOREIGN COMMITTED LINES OF CREDIT*(U.S. dollar equivalent in millions)*

Expiration date of facility	December 31, 2019		
	Total facility	Amounts outstanding	Available unused credit
February 2024 ⁽¹⁾	\$ 1,500	\$ (894)	\$ 606
April 2022 ⁽²⁾	100	—	100
September 2021 ⁽³⁾	280	(280)	—
Total	\$ 1,880	\$ (1,174)	\$ 706

⁽¹⁾ Five-year revolving credit facility with a syndicate of 10 lenders.

⁽²⁾ Three-year revolving credit facility with Scotiabank Inverlat, S.A. Withdrawals may be made for up to one year from April 11, 2019 in either U.S. dollars or Mexican pesos.

⁽³⁾ Two-year revolving credit facility with The Bank of Nova Scotia. Withdrawals may be made for up to two years from September 23, 2019 in U.S. dollars.

Letters of Credit

Outside of our domestic and foreign committed credit facilities, we have bilateral unsecured standby letter of credit capacity

with select lenders that is uncommitted and supported by reimbursement agreements. At December 31, 2019, we had approximately \$647 million in standby letters of credit outstanding under these agreements.

WEIGHTED-AVERAGE INTEREST RATES

The weighted-average interest rates on the total short-term debt at December 31, 2019 and 2018 were as follows:

	December 31,	
	2019	2018
Sempra Energy Consolidated	2.31%	2.99%
SDG&E	1.97	2.97
SoCalGas	1.86	2.58

LONG-TERM DEBT

The following tables show the detail and maturities of long-term debt outstanding:

LONG-TERM DEBT AND FINANCE LEASES

(Dollars in millions)

	December 31,	
	2019	2018
SDG&E		
First mortgage bonds (collateralized by plant assets):		
3% August 15, 2021	\$ 350	\$ 350
1.914% payable 2015 through February 2022	89	125
3.6% September 1, 2023	450	450
2.5% May 15, 2026	500	500
6% June 1, 2026	250	250
5.875% January and February 2034 ⁽¹⁾	176	176
5.35% May 15, 2035	250	250
6.125% September 15, 2037	250	250
4% May 1, 2039 ⁽¹⁾	75	75
6% June 1, 2039	300	300
5.35% May 15, 2040	250	250
4.5% August 15, 2040	500	500
3.95% November 15, 2041	250	250
4.3% April 1, 2042	250	250
3.75% June 1, 2047	400	400
4.15% May 15, 2048	400	400
4.1% June 15, 2049	400	—
	5,140	4,776
Other long-term debt:		
OMECE LLC variable-rate loan (4.7896% at December 31, 2018 except for \$142 at 5.2925% after floating-to-fixed rate swaps through April 1, 2019), payable 2019 through 2024 (collateralized by OMECE plant assets)	—	220
Finance lease obligations:		
Purchased-power contracts	1,255	1,270
Other	15	2
	1,270	1,492
	6,410	6,268
Current portion of long-term debt	(56)	(81)
Unamortized discount on long-term debt	(12)	(12)
Unamortized debt issuance costs	(36)	(37)
Total SDG&E	6,306	6,138
SoCalGas:		
First mortgage bonds (collateralized by plant assets):		
3.15% September 15, 2024	500	500
3.2% June 15, 2025	350	350
2.6% June 15, 2026	500	500
5.75% November 15, 2035	250	250
5.125% November 15, 2040	300	300
3.75% September 15, 2042	350	350
4.45% March 15, 2044	250	250
4.125% June 1, 2048	400	400
4.3% January 15, 2049	550	550
3.95% February 15, 2050	350	—
	3,800	3,450
Other long-term debt (uncollateralized):		
1.875% Notes May 14, 2026 ⁽¹⁾	4	4
5.67% Notes January 18, 2028	5	5
Finance lease obligations	19	3
	28	12
	3,828	3,462
Current portion of long-term debt	(6)	(3)
Unamortized discount on long-term debt	(7)	(6)
Unamortized debt issuance costs	(27)	(26)

LONG-TERM DEBT AND FINANCE LEASES (CONTINUED)
(Dollars in millions)

	December 31,	
	2019	2018
Sempra Energy:		
Other long-term debt (uncollateralized):		
9.8% Notes February 15, 2019	—	500
Notes at variable rates (2.69% at December 31, 2018) July 15, 2019	—	500
1.625% Notes October 7, 2019	—	500
2.4% Notes February 1, 2020	500	500
2.4% Notes March 15, 2020	500	500
2.85% Notes November 15, 2020	400	400
Notes at variable rates (2.50% at December 31, 2019) January 15, 2021 ⁽¹⁾	700	700
Notes at variable rates (3.069% after floating-to-fixed rate swaps effective 2019) March 15, 2021	850	850
2.875% Notes October 1, 2022	500	500
2.9% Notes February 1, 2023	500	500
4.05% Notes December 1, 2023	500	500
3.55% Notes June 15, 2024	500	500
3.75% Notes November 15, 2025	350	350
3.25% Notes June 15, 2027	750	750
3.4% Notes February 1, 2028	1,000	1,000
3.8% Notes February 1, 2038	1,000	1,000
6% Notes October 15, 2039	750	750
4% Notes February 1, 2048	800	800
5.75% Junior Subordinated Notes July 1, 2079 ⁽¹⁾	758	—
Build-to-suit arrangement ⁽²⁾	—	138
Sempra Mexico		
Other long-term debt (uncollateralized unless otherwise noted):		
6.3% Notes February 2, 2023 (4.124% after cross-currency swap effective 2013)	207	198
Notes at variable rates (4.88% after floating-to-fixed rate swaps effective 2014), payable 2016 through December 2026, collateralized by plant assets	237	275
3.75% Notes January 14, 2028	300	300
Bank loans including \$241 at a weighted-average fixed rate of 6.87%, \$147 at variable rates (weighted-average rate of 6.54% after floating-to-fixed rate swaps effective 2014) and \$35 at variable rates (5.12% at December 31, 2019), payable 2016 through March 2032, collateralized by plant assets	423	447
4.875% Notes January 14, 2048	540	540
Loan at variable rates (5.75% at December 31, 2019) July 31, 2028 ⁽¹⁾	11	4
Loan at variable rates (4.0275% after floating-to-fixed rate swap effective 2019) payable 2022 through November 2034 ⁽¹⁾	200	—
Sempra LNG		
Other long-term debt (uncollateralized):		
Notes at 2.87% to 3.51% October 1, 2026 ⁽¹⁾	22	21
	12,298	13,023
Current portion of long-term debt	(1,464)	(1,560)
Unamortized discount on long-term debt	(35)	(38)
Unamortized debt issuance costs	(108)	(87)
Total other Sempra Energy	10,691	11,338
Total Sempra Energy Consolidated	\$ 20,785	\$ 20,903

⁽¹⁾ Callable long-term debt not subject to make-whole provisions.

⁽²⁾ This arrangement is now accounted for as an operating lease liability upon adoption of the lease standard on January 1, 2019. See Note 2.

MATURITIES OF LONG-TERM DEBT⁽¹⁾
(Dollars in millions)

	SDG&E		SoCalGas		Other Sempra Energy	Total Sempra Energy Consolidated
2020	\$ 36	\$ —	\$ 1,465	\$ 1,501		
2021	386	—	1,619	2,005		
2022	18	—	576	594		
2023	450	—	1,285	1,735		
2024	—	500	545	1,045		
Thereafter	4,250	3,309	6,808	14,367		
Total	\$ 5,140	\$ 3,809	\$ 12,298	\$ 21,247		

⁽¹⁾ Excludes finance lease obligations, discounts, and debt issuance costs.

Various long-term obligations totaling \$11.6 billion at Sempra Energy Consolidated at December 31, 2019 are unsecured. This includes unsecured long-term obligations totaling \$9 million at SoCalGas. There were no unsecured long-term obligations at SDG&E.

Callable Long-Term Debt

At the option of Sempra Energy, SDG&E and SoCalGas, certain debt at December 31, 2019 is callable subject to premiums:

CALLABLE LONG-TERM DEBT

(Dollars in millions)

	SDG&E	SoCalGas	Other Sempra Energy	Total Sempra Energy Consolidated
Not subject to make-whole provisions	\$ 251	\$ 4	\$ 1,691	\$ 1,946
Subject to make-whole provisions	4,889	3,800	9,097	17,786

First Mortgage Bonds

The California Utilities issue first mortgage bonds secured by a lien on utility plant assets. The California Utilities may issue additional first mortgage bonds if in compliance with the provisions of their bond agreements (indentures). These indentures require, among other things, the satisfaction of pro forma earnings-coverage tests on first mortgage bond interest and the availability of sufficient mortgaged property to support the additional bonds, after giving effect to prior bond redemptions. The most restrictive of these tests (the property test) would permit the issuance, subject to CPUC authorization, of additional first mortgage bonds of \$6.4 billion at SDG&E and \$1.3 billion at SoCalGas at December 31, 2019.

SDG&E

In May 2019, SDG&E issued \$400 million of 4.1% first mortgage bonds maturing in 2049. We received proceeds of \$396 million (net of debt discount, underwriting discounts and debt issuance costs of \$4 million). SDG&E used the proceeds from the offering to repay outstanding commercial paper and for other general corporate purposes.

As we discuss in "Variable Interest Entities" in Note 1, on August 23, 2019, SDG&E deconsolidated Otay Mesa VIE. Prior to deconsolidation, on August 14, 2019, OMEC LLC paid in full the \$211 million outstanding balance on its variable-rate loan that was scheduled to mature in August 2024.

SoCalGas

In June 2019, SoCalGas issued \$350 million of 3.95% first mortgage bonds maturing in 2050. We received proceeds of \$345 million (net of debt discount, underwriting discounts and debt issuance costs of \$5 million). SoCalGas used the proceeds from the offering to repay outstanding commercial paper and for other general corporate purposes.

In January 2020, SoCalGas issued \$650 million of 2.55% first mortgage bonds maturing in 2030. We received proceeds of \$643 million (net of debt discount, underwriting discounts and debt issuance costs of \$7 million). SoCalGas used the proceeds from the offering to repay outstanding commercial paper and for other general corporate purposes.

Other Long-Term Debt

Sempra Energy

In June 2019, we issued \$758 million of 5.75%, junior subordinated notes maturing in 2079, with a par value of \$25 per note. We received proceeds of \$733 million (net of underwriting discounts and debt issuance costs of \$25 million). We used the proceeds from the offering to repay outstanding commercial paper and for other general corporate purposes. We may redeem some or all of the notes before their maturity, as follows:

- on or after October 1, 2024, at a redemption price equal to 100% of the principal amount, plus accrued and unpaid interest;
- before October 1, 2024, if the U.S. federal tax law or regulations are amended or certain other events occur such that there is more than insubstantial risk that interest payable on the notes would no longer be deductible for federal income tax purposes, at a redemption price equal to 100% of the principal amount, plus accrued and unpaid interest; or
- before October 1, 2024, if a credit rating agency publicly changes certain equity credit methodology for securities such as these notes that results in a shortening of the length of time for equity credit initially assigned or lowers the equity credit initially assigned, at a redemption price equal to 102% of the principal amount, plus accrued and unpaid interest.

The notes are unsecured obligations and rank junior and subordinate in right of payment to our existing and future senior indebtedness. The notes will rank equally in right of payment with any future unsecured indebtedness that we may incur if the terms of such indebtedness provide that it ranks equally with the notes in right of payment. The notes are effectively subordinated in right of payment to any secured indebtedness that we have or may incur and to all indebtedness and other liabilities of our subsidiaries.

Sempra Mexico

In November 2019, IEnova entered into a loan agreement with International Finance Corporation and North American Development Bank and, in December 2019, received proceeds of \$190 million (net of debt issuance costs of \$10 million) to fund the construction of certain solar generation projects in Mexico. The 15-year loan bears interest based on 6-month LIBOR plus 2.25% and matures in 2034. In November 2019, IEnova entered into a floating-to-fixed interest rate swap to hedge interest payments on the \$200 million variable rate loan, resulting in an all-in fixed rate of 4.03%.

NOTE 8. INCOME TAXES

We provide our calculations of ETRs in the following table.

INCOME TAX EXPENSE (BENEFIT) AND EFFECTIVE INCOME TAX RATES

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Income tax expense (benefit) from continuing operations	\$ 315	\$ (49)	\$ 938
Income from continuing operations before income taxes and equity earnings	\$ 1,734	\$ 714	\$ 1,248
Equity earnings (losses), before income tax ⁽¹⁾	30	(236)	34
Pretax income	\$ 1,764	\$ 478	\$ 1,282
Effective income tax rate	18%	(10)%	73%
SDG&E:			
Income tax expense	\$ 171	\$ 173	\$ 155
Income before income taxes	\$ 945	\$ 849	\$ 576
Effective income tax rate	18%	20%	27%
SoCalGas:			
Income tax expense	\$ 120	\$ 92	\$ 160
Income before income taxes	\$ 762	\$ 493	\$ 557
Effective income tax rate	16%	19%	29%

⁽¹⁾ We discuss how we recognize equity earnings in Note 6.

For SDG&E and SoCalGas, the CPUC requires flow-through rate-making treatment for the current income tax benefit or expense arising from certain property-related and other temporary differences between the treatment for financial reporting and income tax, which will reverse over time. Under the regulatory accounting treatment required for these flow-through temporary differences, deferred income tax assets and liabilities are not recorded to deferred income tax expense, but rather to a regulatory asset or liability, which impacts the ETR. As a result, changes in the relative size of these items compared to pretax income, from period to period, can cause variations in the ETR. The following items are subject to flow-through treatment:

- repairs expenditures related to a certain portion of utility plant fixed assets
- the equity portion of AFUDC, which is non-taxable
- a portion of the cost of removal of utility plant assets
- utility self-developed software expenditures
- depreciation on a certain portion of utility plant assets
- state income taxes

The AFUDC related to equity recorded for regulated construction projects at Sempra Mexico has similar flow-through treatment.

We record income tax (expense) benefit from the transactional effects of foreign currency and inflation. Such effects are partially mitigated by net gains (losses) from foreign currency derivatives that are hedging Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova.

We present in the table below reconciliations of net U.S. statutory federal income tax rates to our ETRs.

RECONCILIATION OF FEDERAL INCOME TAX RATES TO EFFECTIVE INCOME TAX RATES

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
U.S. federal statutory income tax rate	21 %	21 %	35 %
Foreign exchange and inflation effects ⁽¹⁾	4	6	4
Non-U.S. earnings taxed at rates different from the U.S. statutory income tax rate ⁽²⁾	3	10	(2)
Utility depreciation	3	12	7
State income taxes, net of federal income tax benefit	2	(8)	1
Effects of the TCJA	—	9	48
Compensation-related items	—	3	—
Unrecognized income tax benefits	—	4	—
Noncontrolling interests in tax equity arrangements	—	3	1
Resolution of prior years' income tax items	—	(1)	(3)
Impairment losses at Sempra LNG	—	(32)	—
Allowance for equity funds used during construction	(1)	(4)	(4)
Amortization of excess deferred income taxes	(1)	(4)	—
Tax credits	(2)	(10)	(4)
Utility self-developed software expenditures	(2)	(7)	(5)
Utility repairs expenditures	(3)	(13)	(7)
Excess deferred income taxes outside of ratemaking	(4)	—	—
Other, net	(2)	1	2
Effective income tax rate	18 %	(10)%	73 %
SDG&E			
U.S. federal statutory income tax rate	21 %	21 %	35 %
State income taxes, net of federal income tax benefit	6	5	3
Depreciation	3	3	7
Effects of the TCJA	—	—	5
Resolution of prior years' income tax items	—	—	(4)
Allowance for equity funds used during construction	(1)	(2)	(4)
Amortization of excess deferred income taxes	(1)	(1)	—
Repairs expenditures	(3)	(3)	(8)
Self-developed software expenditures	(3)	(2)	(6)
Excess deferred income taxes outside of ratemaking	(3)	—	—
Other, net	(1)	(1)	(1)
Effective income tax rate	18 %	20 %	27 %
SoCalGas:			
U.S. federal statutory income tax rate	21 %	21 %	35 %
Depreciation	4	7	9
State income taxes, net of federal income tax benefit	4	2	3
Unrecognized income tax benefits	—	4	—
Compensation-related items	—	1	—
Resolution of prior years' income tax items	—	(1)	(2)
Allowance for equity funds used during construction	(1)	(2)	(3)
Amortization of excess deferred income taxes	(1)	(2)	—
Self-developed software expenditures	(2)	(3)	(5)
Repairs expenditures	(4)	(7)	(8)
Excess deferred income taxes outside of ratemaking	(5)	—	—
Other, net	—	(1)	—
Effective income tax rate	16 %	19 %	29 %

⁽¹⁾ Due to fluctuation of the Mexican peso against the U.S. dollar. We record income tax expense (benefit) from the transactional effects of foreign currency and inflation because of appreciation (depreciation) of the Mexican peso. We also recognize gains (losses) in Other Income, Net, on the Consolidated Statements of Operations from foreign currency derivatives that are partially hedging Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova.

⁽²⁾ Related to operations in Mexico.

In December 2017, the TCJA was signed into law. This legislation significantly changed the IRC. The TCJA reduced the U.S. statutory corporate income tax rate from 35% to 21%, effective January 1, 2018. Deferred income tax assets and liabilities, including NOLs, were remeasured at the income tax rate expected to apply when those temporary differences reverse. The effects of the change to the income tax rate were recognized in the period when the change was enacted. This remeasurement resulted in significant reductions in deferred income tax balances at Sempra Energy Consolidated, SDG&E and SoCalGas in 2017.

The remeasurement of deferred income tax balances at SDG&E and SoCalGas resulted in excess deferred income taxes that previously have been collected from ratepayers at the higher rate. As we discuss in Note 4, these excess deferred income taxes have been recorded as regulatory liabilities and will generally be refunded to ratepayers in accordance with the IRC's normalization provisions and as determined by the CPUC and the FERC. In a January 2019 decision, the CPUC directed certain excess deferred income tax balances generated by activities outside of ratemaking be allocated to shareholders rather than ratepayers. As a result, SDG&E and SoCalGas recorded income tax benefits of \$31 million and \$38 million, respectively, from the release of a portion of the regulatory liability established in connection with 2017 tax reform for excess deferred income tax balances.

The TCJA imposed a one-time tax for deemed repatriation of cumulative undistributed earnings of non-U.S. subsidiaries. In addition to the deemed repatriation tax, we accrued U.S. state and non-U.S. withholding tax on our expected future repatriation of foreign undistributed earnings.

We recorded the effects of the TCJA in 2017 using our best estimates and the information available to us through the date those financial statements were issued. In 2018, we adjusted our 2017 provisional estimates and completed our accounting for the income tax effects of the TCJA.

The table below summarizes the effects of the TCJA in 2018 and 2017:

EFFECTS OF THE TAX CUTS AND JOBS ACT OF 2017

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
2018:			
Consolidated Balance Sheets:			
Increase (decrease) in net deferred income tax liabilities due to remeasurement	\$ 16	\$ (38)	\$ 5
Increase (decrease) in net regulatory liabilities from remeasurement of deferred income tax assets and liabilities	\$ 33	\$ 38	\$ (5)
Consolidated Statements of Operations:			
Income tax expense related to remeasurement of deferred income tax assets and liabilities	\$ 49	\$ —	\$ —
Income tax benefit related to deemed repatriation	(8)	—	—
Total increase in income tax expense	\$ 41	\$ —	\$ —
2017:			
Consolidated Balance Sheets:			
Decrease in net deferred income tax liabilities due to remeasurement	\$ (2,220)	\$ (1,400)	\$ (972)
Increase in net regulatory liabilities from remeasurement of deferred income tax assets and liabilities	\$ 2,402	\$ 1,428	\$ 974
Consolidated Statements of Operations:			
Income tax expense related to remeasurement of deferred income tax assets and liabilities	\$ 182	\$ 28	\$ 2
Income tax expense related to deemed repatriation	328	—	—
U.S. state and non-U.S. withholding tax expense related to expected future repatriation of foreign earnings	109	—	—
Total increase in income tax expense	\$ 619	\$ 28	\$ 2

In January 2019, our board of directors approved a plan to sell our South American businesses, as we discuss in Note 5. Prior to this decision, our repatriation estimate excluded post-2017 earnings and other basis differences related to our South American businesses. Because of our decision to sell our South American businesses, we no longer assert indefinite reinvestment of these basis differences and have recorded the following in discontinued operations in the year ended December 31, 2019:

- \$89 million income tax benefit primarily related to outside basis differences existing as of the January 25, 2019 approval of our plan to sell our South American businesses; and
- \$51 million income tax expense related to the increase in outside basis differences from 2019 earnings since January 25, 2019.

We expect to repatriate approximately \$4 billion of foreign undistributed earnings in the foreseeable future, and have accrued \$157 million of U.S. state deferred income tax liability for repatriations that we expect will begin in 2020 as cash is generated. In 2019 and 2018, we repatriated approximately \$254 million and \$338 million, respectively, to the U.S.

We have not recorded deferred income taxes with respect to remaining basis differences of approximately \$600 million between financial statement and income tax investment amounts in our non-U.S. subsidiaries because we consider them to be indefinitely reinvested as of December 31, 2019. The remaining basis differences are calculated pursuant to U.S. federal tax law, which may differ from tax law in California and foreign jurisdictions. It is currently not practicable to determine the hypothetical amount of tax that might be payable if the underlying basis differences were realized.

The table below presents the geographic components of pretax income.

PRETAX INCOME – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
By geographic components:			
U.S.	\$ 1,191	\$ (102)	\$ 878
Non-U.S.	573	580	404
Total ⁽¹⁾	\$ 1,764	\$ 478	\$ 1,282

⁽¹⁾ See "Income Tax Expense (Benefit) and Effective Income Tax Rates" table above for calculation of pretax income.

U.S. pretax income was lower in 2018 compared to 2019 and 2017 due to the 2018 impairment of certain assets at Sempra LNG and Sempra Renewables (discussed in Notes 5 and 12), offset by the 2018 gain on the sale of assets at Sempra Renewables (discussed in Note 5) and the 2017 write-off of SDG&E's wildfire regulatory asset (discussed in Note 16).

The components of income tax expense are as follows.

INCOME TAX EXPENSE (BENEFIT)

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Current:			
U.S. federal	\$ —	\$ (1)	\$ 4
U.S. state	(14)	67	—
Non-U.S.	140	127	45
Total	126	193	49
Deferred:			
U.S. federal	87	(121)	566
U.S. state	21	(183)	154
Non-U.S.	84	66	169
Total	192	(238)	889
Deferred investment tax credits	(3)	(4)	—
Total income tax expense (benefit)	\$ 315	\$ (49)	\$ 938
SDG&E			
Current:			
U.S. federal	\$ 35	\$ 104	\$ 100
U.S. state	31	30	65
Total	66	134	165
Deferred:			
U.S. federal	75	17	29
U.S. state	32	24	(41)
Total	107	41	(12)
Deferred investment tax credits	(2)	(2)	2
Total income tax expense	\$ 171	\$ 173	\$ 155
SoCalGas:			
Current:			
U.S. federal	\$ 8	\$ 4	\$ —
U.S. state	24	10	23
Total	32	14	23
Deferred:			
U.S. federal	79	78	144
U.S. state	10	2	(5)
Total	89	80	139
Deferred investment tax credits	(1)	(2)	(2)
Total income tax expense	\$ 120	\$ 92	\$ 160

The tables below present the components of deferred income taxes:

DEFERRED INCOME TAXES – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	December 31,	
	2019	2018
Deferred income tax liabilities:		
Differences in financial and tax bases of fixed assets, investments and other assets ⁽¹⁾	\$ 4,052	\$ 3,517
U.S. state and non-U.S. withholding tax on repatriation of foreign earnings	153	382
Regulatory balancing accounts	468	359
Right-of-use assets – operating leases	131	—
Property taxes	44	41
Other deferred income tax liabilities	93	133
Total deferred income tax liabilities	4,941	4,432
Deferred income tax assets:		
Tax credits	1,136	1,114
Net operating losses	911	723
Postretirement benefits	200	261
Compensation-related items	161	170
Operating lease liabilities	131	—
Other deferred income tax assets	72	82
Accrued expenses not yet deductible	52	66
Deferred income tax assets before valuation allowances	2,663	2,416
Less: valuation allowances	144	164
Total deferred income tax assets	2,519	2,252
Net deferred income tax liability⁽²⁾	\$ 2,422	\$ 2,180

⁽¹⁾ In addition to the financial over tax basis differences in fixed assets, the amount also includes financial over tax basis differences in various interests in partnerships and certain subsidiaries.

⁽²⁾ At December 31, 2019 and 2018, includes \$155 million and \$141 million, respectively, recorded as a noncurrent asset and \$2,577 million and \$2,321 million, respectively, recorded as a noncurrent liability on the Consolidated Balance Sheets.

DEFERRED INCOME TAXES – SDG&E AND SOCALGAS

(Dollars in millions)

	SDG&E		SoCalGas	
	December 31,		December 31,	
	2019	2018	2019	2018
Deferred income tax liabilities:				
Differences in financial and tax bases of utility plant and other assets	\$ 1,735	\$ 1,578	\$ 1,246	\$ 1,077
Regulatory balancing accounts	141	84	327	283
Right-of-use assets – operating leases	32	—	22	—
Property taxes	30	29	14	13
Other	14	10	1	2
Total deferred income tax liabilities	1,952	1,701	1,610	1,375
Deferred income tax assets:				
Tax credits	6	6	3	3
Postretirement benefits	37	58	120	140
Compensation-related items	6	5	25	25
Operating lease liabilities	32	—	22	—
State income taxes	7	6	8	3
Accrued expenses not yet deductible	9	4	15	13
Other	7	6	14	14
Total deferred income tax assets	104	85	207	198
Net deferred income tax liability	\$ 1,848	\$ 1,616	\$ 1,403	\$ 1,177

The following table summarizes our unused NOLs and tax credit carryforwards.

NET OPERATING LOSSES AND TAX CREDIT CARRYFORWARDS

(Dollars in millions)

	Unused amount at December 31, 2019	Year expiration begins
Sempra Energy Consolidated:		
U.S. federal:		
NOLs ⁽¹⁾	\$ 3,475	2031
General business tax credits ⁽¹⁾	433	2032
Foreign tax credits ⁽²⁾	624	2024
U.S. state ⁽²⁾ :		
NOLs	3,025	2020
General business tax credits	90	2020
Non-U.S. ⁽²⁾ – NOLs	115	2020

⁽¹⁾ We have recorded deferred income tax benefits on these NOLs and tax credits, in total, because we currently believe they will be realized on a more-likely-than-not-basis.

⁽²⁾ We have not recorded deferred income tax benefits on a portion of these NOLs and tax credits because we currently believe they will not be realized on a more-likely-than-not-basis, as discussed below.

A valuation allowance is recorded when, based on more-likely-than-not criteria, negative evidence outweighs positive evidence with regard to our ability to realize a deferred income tax asset in the future. Of the valuation allowances recorded to date, the negative evidence outweighs the positive evidence primarily due to cumulative pretax losses in various U.S. state and non-U.S. jurisdictions resulting in deferred income tax assets that we currently do not believe will be realized on a more-likely-than-not basis. The following table provides the valuation allowances that we recorded against a portion of our total deferred income tax assets shown above in the “Deferred Income Taxes – Sempra Energy Consolidated” table.

VALUATION ALLOWANCES

(Dollars in millions)

	December 31,	
	2019	2018
Sempra Energy Consolidated:		
U.S. federal	\$ 90	\$ 109
U.S. state	33	35
Non-U.S.	21	20
	\$ 144	\$ 164

Following is a reconciliation of the changes in unrecognized income tax benefits and the potential effect on our ETR for the years ended December 31:

RECONCILIATION OF UNRECOGNIZED INCOME TAX BENEFITS

(Dollars in millions)

	2019		2018		2017	
Sempra Energy Consolidated:						
Balance at January 1	\$	119	\$	89	\$	90
Increase in prior period tax positions		5		7		22
Decrease in prior period tax positions		—		(1)		(15)
Increase in current period tax positions		2		24		4
Settlements with taxing authorities		(32)		—		(12)
Expiration of statutes of limitations		(1)		—		—
Balance at December 31	\$	93	\$	119	\$	89
Of December 31 balance, amounts related to tax positions that if recognized in future years would						
decrease the effective tax rate ⁽¹⁾	\$	(81)	\$	(107)	\$	(77)
increase the effective tax rate ⁽¹⁾		27		24		20
SDG&E:						
Balance at January 1	\$	11	\$	10	\$	22
Increase in prior period tax positions		1		1		9
Decrease in prior period tax positions		—		—		(11)
Settlements with taxing authorities		—		—		(10)
Balance at December 31	\$	12	\$	11	\$	10
Of December 31 balance, amounts related to tax positions that if recognized in future years would						
decrease the effective tax rate ⁽¹⁾	\$	(9)	\$	(9)	\$	(7)
increase the effective tax rate ⁽¹⁾		1		1		1
SoCalGas:						
Balance at January 1	\$	61	\$	35	\$	29
Increase in prior period tax positions		1		2		3
Increase in current period tax positions		2		24		4
Settlements with taxing authorities		—		—		(1)
Balance at December 31	\$	64	\$	61	\$	35
Of December 31 balance, amounts related to tax positions that if recognized in future years would						
decrease the effective tax rate ⁽¹⁾	\$	(55)	\$	(51)	\$	(26)
increase the effective tax rate ⁽¹⁾		26		23		20

⁽¹⁾ Includes temporary book and tax differences that are treated as flow-through for ratemaking purposes, as discussed above.

It is reasonably possible that within the next 12 months, unrecognized income tax benefits could decrease due to the following:

POSSIBLE DECREASES IN UNRECOGNIZED INCOME TAX BENEFITS WITHIN 12 MONTHS

(Dollars in millions)

	At December 31,					
	2019		2018		2017	
Sempra Energy Consolidated:						
Expiration of statutes of limitations on tax assessments	\$	—	\$	(1)	\$	—
Potential resolution of audit issues with various U.S. federal, state and local and non-U.S. taxing authorities		(8)		(40)		(8)
	\$	(8)	\$	(41)	\$	(8)
SDG&E:						
Potential resolution of audit issues with various U.S. federal, state and local taxing authorities	\$	(6)	\$	(6)	\$	(6)
SoCalGas:						
Potential resolution of audit issues with various U.S. federal, state and local taxing authorities	\$	(2)	\$	(2)	\$	(2)

Amounts accrued for interest and penalties associated with unrecognized income tax benefits are included in Income Tax Expense on the Consolidated Statements of Operations. Sempra Energy Consolidated accrued \$1 million for interest expense and penalties at December 31, 2019 and 2018, respectively, on the Consolidated Balance Sheets, and recorded \$1 million of interest expense and penalties in 2018 and negligible amounts in each of 2019 and 2017 on the Consolidated Statements of Operations. SDG&E and SoCalGas each accrued negligible amounts for interest expense and penalties at December 31, 2019 and 2018 on the Consolidated Balance Sheets, and recorded negligible amounts of interest expense and penalties in each of 2019, 2018 and 2017 on the Consolidated Statements of Operations.

INCOME TAX AUDITS

Sempra Energy is subject to U.S. federal income tax as well as income tax of multiple state and non-U.S. jurisdictions. We remain subject to examination for U.S. federal tax years after 2015. We are subject to examination by major state tax jurisdictions for tax years after 2010. Certain major non-U.S. income tax returns for tax years 2012 through the present are open to examination. We are also open to examination for non-U.S. income tax returns related to our prior interest in our commodities business, which we divested in 2010, for years 1999 through 2010.

SDG&E and SoCalGas are subject to U.S. federal income tax and state income tax. They remain subject to examination for U.S. federal tax years after 2015 and state tax years after 2010.

In addition, Sempra Energy has filed a protest to contest proposed state audit adjustments for tax years 2009 and 2010. The pre-2011 tax years for our major state tax jurisdictions are closed to new issues; therefore, no additional tax may be assessed by the taxing authorities for these tax years.

NOTE 9. EMPLOYEE BENEFIT PLANS

For our employee benefit plans, we:

- recognize an asset for a plan's overfunded status or a liability for a plan's underfunded status in the balance sheet;
- measure a plan's assets and its obligations that determine its funded status as of the end of the fiscal year; and
- recognize changes in the funded status of pension and PBOP plans in the year in which the changes occur. Generally, those changes are reported in OCI and as a separate component of shareholders' equity.

The detailed information presented below covers the employee benefit plans of primarily Sempra Energy and its consolidated subsidiaries.

Sempra Energy has funded and unfunded noncontributory traditional defined benefit and cash balance plans, including separate plans for SDG&E and SoCalGas, which collectively cover all eligible employees, including members of the Sempra Energy board of directors who were participants in a predecessor plan on or before June 1, 1998. Pension benefits under the traditional defined benefit plans are based on service and final average earnings, while the cash balance plans provide benefits using a career average earnings methodology.

Enova has an unfunded noncontributory defined benefit plan covering all employees that provides defined benefits to retirees based on date of hire, years of service and final average earnings.

Sempra Energy also has PBOP plans, including separate plans for SDG&E and SoCalGas, which collectively cover all domestic and certain foreign employees. The life insurance plans are both contributory and noncontributory, and the health care plans are contributory. Participants' contributions are adjusted annually. Other postretirement benefits include medical benefits for retirees' spouses.

Pension and other postretirement benefits costs and obligations are dependent on assumptions used in calculating such amounts. We review these assumptions on an annual basis and update them as appropriate. We consider current market conditions, including interest rates, in making these assumptions. We use a December 31 measurement date for all of our plans.

RABBI TRUST

In support of its Supplemental Executive Retirement, Cash Balance Restoration and Deferred Compensation Plans, Sempra Energy maintains dedicated assets, including a Rabbi Trust and investments in life insurance contracts, which totaled \$488 million and \$416 million at December 31, 2019 and 2018, respectively.

PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

Benefit Plan Amendments Affecting 2019 and 2018

In 2019 and 2018, certain executive participants in a company nonqualified pension plan became eligible in this same plan for Supplemental Executive Retirement Plan benefits. This was treated as a plan amendment and increased the recorded pension liability by \$5 million and \$12 million at Sempra Energy and \$3 million and \$8 million at SDG&E in 2019 and 2018, respectively, and \$2 million at SoCalGas in 2019.

Settlement Accounting for Lump Sum Payments

When applicable, we record settlement charges for lump sum payments from our nonqualified pension plans that are in excess of the respective plan's service cost plus interest cost. Sempra Energy Consolidated recorded settlement charges of \$24 million in 2019, Sempra Energy Consolidated and SDG&E recorded settlement charges of \$12 million and \$4 million, respectively, in 2018, and Sempra Energy Consolidated recorded settlement charges of \$8 million in 2017.

Sale of Qualified Pension Plan Annuity Contracts

In March 2018, an insurance company purchased annuities for certain current annuitants in the SDG&E and SoCalGas qualified pension plans and assumed the obligation for payment of these annuities. At SDG&E in the first quarter of 2018 and at SoCalGas in the second quarter of 2018, the liability transferred for these annuities, plus the total year-to-date lump-sum payments, exceeded the settlement threshold, which triggered settlement accounting. This resulted in a reduction of the recorded pension liability and pension plan assets of \$363 million at Sempra Energy Consolidated, including \$132 million at SDG&E and \$231 million at SoCalGas. This also resulted in settlement charges in net periodic benefit cost of \$54 million at Sempra Energy Consolidated, including \$22 million at SDG&E and \$32 million at SoCalGas. The settlement charges were recorded as regulatory assets on the Consolidated Balance Sheets.

Acquisition

In March 2018, Sempra Energy completed the Merger, as we discuss in Note 5, and assumed unfunded other postretirement employee benefits obligations for health care and life insurance benefits, resulting in an increase of \$21 million in the other postretirement benefit plan liability at Sempra Energy Consolidated.

In each of 2019 and 2018, we had \$27 million in AOCI representing an actuarial loss related to Oncor's pension plan.

Special Termination Benefits Affecting 2018 and 2017

In 2018, certain nonrepresented, and in 2017, certain represented, employees age 62 or older with 5 years of service or age 55 to 61 with 10 years of service that retired under the Voluntary Retirement Enhancement Program offered in these years received an additional postretirement health benefit in the form of a \$100,000 Health Reimbursement Account. We treated the benefit obligation attributable to the Health Reimbursement Account as a special termination benefit. This resulted in increases to the recorded liability for PBOP and net periodic benefit cost of \$5 million for Sempra Energy Consolidated, \$3 million for SDG&E and \$2 million for SoCalGas in 2018 and \$18 million for each of Sempra Energy Consolidated and SoCalGas in 2017.

The Voluntary Retirement Enhancement Program resulted in a higher than expected number of retirements in 2017. As a result, the total lump-sum benefits paid from the Sempra Energy nonqualified and SoCalGas qualified pension plans in 2017 exceeded the settlement threshold, which triggered settlement accounting. This resulted in a reduction of the recorded pension liability and pension plan assets of \$194 million at Sempra Energy Consolidated and \$175 million at SoCalGas. This also resulted in settlement charges in net periodic benefit cost of \$38 million at Sempra Energy Consolidated and \$30 million at SoCalGas. The settlement charges at SoCalGas were recorded as regulatory assets on the Consolidated Balance Sheets. A measurement date of December 31, 2017 was used for the respective settlement accounting triggered as the year-to-date lump-sum benefit payments first exceeded the settlement threshold in December.

Benefit Obligations and Assets

The following three tables provide a reconciliation of the changes in the plans' projected benefit obligations and the fair value of assets during 2019 and 2018, and a statement of the funded status at December 31, 2019 and 2018:

PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS

SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 3,339	\$ 3,841	\$ 868	\$ 959
Service cost	110	124	17	21
Interest cost	139	140	36	36
Contributions from plan participants	—	—	21	23
Actuarial loss (gain)	445	(271)	45	(123)
Plan amendments	5	12	—	—
Benefit payments	(93)	(113)	(72)	(74)
Special termination benefits	—	—	—	5
Acquisition	—	—	—	21
Settlements	(177)	(394)	(2)	—
Net obligation at December 31	3,768	3,339	913	868
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	2,160	2,659	1,108	1,209
Actual return on plan assets	496	(180)	218	(56)
Employer contributions	276	188	8	6
Contributions from plan participants	—	—	21	23
Benefit payments	(93)	(113)	(72)	(74)
Settlements	(177)	(394)	(2)	—
Fair value of plan assets at December 31	2,662	2,160	1,281	1,108
Funded status at December 31	\$ (1,106)	\$ (1,179)	\$ 368	\$ 240
Net recorded (liability) asset at December 31	\$ (1,106)	\$ (1,179)	\$ 368	\$ 240

PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS

SAN DIEGO GAS & ELECTRIC COMPANY

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 814	\$ 971	\$ 170	\$ 185
Service cost	30	30	4	5
Interest cost	34	35	7	7
Contributions from plan participants	—	—	7	8
Actuarial loss (gain)	61	(63)	7	(17)
Plan amendments	3	8	—	—
Benefit payments	(18)	(22)	(18)	(21)
Special termination benefits	—	—	—	3
Settlements	(39)	(145)	—	—
Transfer of liability from other plans	10	—	—	—
Net obligation at December 31	895	814	177	170
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	600	776	172	195
Actual return on plan assets	135	(56)	36	(12)
Employer contributions	52	47	—	2
Contributions from plan participants	—	—	7	8
Benefit payments	(18)	(22)	(18)	(21)
Settlements	(39)	(145)	—	—
Transfer of assets from other plans	9	—	—	—
Fair value of plan assets at December 31	739	600	197	172
Funded status at December 31	\$ (156)	\$ (214)	\$ 20	\$ 2
Net recorded (liability) asset at December 31	\$ (156)	\$ (214)	\$ 20	\$ 2

PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS

SOUTHERN CALIFORNIA GAS COMPANY

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 2,148	\$ 2,486	\$ 646	\$ 737
Service cost	68	81	12	15
Interest cost	91	92	27	27
Contributions from plan participants	—	—	13	14
Actuarial loss (gain)	345	(215)	39	(100)
Plan amendments	2	—	—	—
Benefit payments	(59)	(65)	(49)	(49)
Special termination benefits	—	—	—	2
Settlements	(65)	(231)	—	—
Transfer of liability to other plans	(4)	—	—	—
Net obligation at December 31	2,526	2,148	688	646
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	1,385	1,694	916	993
Actual return on plan assets	320	(117)	178	(43)
Employer contributions	152	104	1	1
Contributions from plan participants	—	—	13	14
Benefit payments	(59)	(65)	(49)	(49)
Settlements	(65)	(231)	—	—
Transfer of assets from other plans	4	—	—	—
Fair value of plan assets at December 31	1,737	1,385	1,059	916
Funded status at December 31	\$ (789)	\$ (763)	\$ 371	\$ 270
Net recorded (liability) asset at December 31	\$ (789)	\$ (763)	\$ 371	\$ 270

Actuarial losses (gains) fluctuate based on changes in assumptions that we describe below in “Assumptions for Pension and Other Postretirement Benefit Plans” and updates to census data. In 2019, 2018 and 2017, the Society of Actuaries released updated mortality improvement projection scales, reflecting changes to projected observed longevity improvements in its mortality tables. We have incorporated these assumptions, adjusted for the Sempra Energy companies’ actual mortality experience, in our calculations for each of those years. Actuarial losses in pension plans at Sempra Energy Consolidated in 2019 were driven primarily by a decrease in discount rates and updated census data at Sempra Energy, SDG&E and SoCalGas, a decrease in the lump-sum conversion rate at SDG&E and updated salary scale assumptions at SoCalGas. These actuarial losses were partially offset by actuarial gains at SDG&E and SoCalGas due to a decrease in the interest crediting rate for the cash balance plans. Actuarial losses in PBOP plans at Sempra Energy Consolidated in 2019 were driven primarily by a decrease in discount rates at SDG&E and SoCalGas. These actuarial losses were partially offset by actuarial gains at SoCalGas, due to a reduction in the 2020 expected health care costs.

Net Assets and Liabilities

The assets and liabilities of the pension and PBOP plans are affected by changing market conditions as well as when actual plan experience is different than assumed. Such events result in investment gains and losses, which we defer and recognize in pension and other postretirement benefit costs over a period of years. Our funded pension and PBOP plans use the asset smoothing method, except for those at SDG&E. This method develops an asset value that recognizes realized and unrealized investment gains and losses over a three-year period. This adjusted asset value, known as the market-related value of assets, is used in conjunction with an expected long-term rate of return to determine the expected return-on-assets component of net periodic benefit cost. SDG&E does not use the asset smoothing method, but rather recognizes realized and unrealized investment gains and losses during the current year.

The 10% corridor accounting method is used at Sempra Energy Consolidated, SDG&E and SoCalGas. Under the corridor accounting method, if as of the beginning of a year unrecognized net gain or loss exceeds 10% of the greater of the projected benefit obligation or the market-related value of plan assets, the excess is amortized over the average remaining service period of

active participants. The asset smoothing and 10% corridor accounting methods help mitigate volatility of net periodic benefit costs from year to year.

We recognize the overfunded or underfunded status of defined benefit pension and other postretirement plans as assets or liabilities, respectively; unrecognized changes in these assets and/or liabilities are normally recorded in AOCI on the balance sheet. The California Utilities record regulatory assets and liabilities that offset the funded pension and other postretirement plans' assets or liabilities, as these costs are expected to be recovered in future utility rates based on decisions by regulatory agencies.

The California Utilities record annual pension and other postretirement net periodic benefit costs equal to the contributions to their qualified plans as authorized by the CPUC. The annual contributions to the pension plans are the greater of:

- a minimum required funding amount as required by the IRS;
- the amount required to maintain an 85% Adjusted Funding Target Attainment Percentage as defined by the Pension Protection Act of 2006, as amended; or
- beginning January 1, 2019 and for the duration of the 2019 GRC cycle, a fixed amount equal to the estimated annual service cost as defined by U.S. GAAP plus one year of a 14-year amortization of the unfunded projected benefit obligation of the pension plan as of January 1, 2019, and limited to an annual amount that keeps the fair value of the pension plan assets from exceeding 110% of the pension benefit obligation of the plan.

The annual contributions to PBOP plans are equal to the lesser of the maximum tax deductible amount or the net periodic cost calculated in accordance with U.S. GAAP for pension and PBOP plans. Any differences between booked net periodic benefit cost and amounts contributed to the pension and other postretirement plans for the California Utilities are disclosed as regulatory adjustments in accordance with U.S. GAAP for rate-regulated entities.

The net (liability) asset is included in the following categories on the Consolidated Balance Sheets at December 31:

PENSION AND OTHER POSTRETIREMENT BENEFIT OBLIGATIONS, NET OF PLAN ASSETS

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
Sempra Energy Consolidated:				
Noncurrent assets	\$ —	\$ —	\$ 391	\$ 272
Current liabilities	(59)	(62)	(3)	(6)
Noncurrent liabilities	(1,047)	(1,117)	(20)	(26)
Net recorded (liability) asset	\$ (1,106)	\$ (1,179)	\$ 368	\$ 240
SDG&E:				
Noncurrent assets	\$ —	\$ —	\$ 20	\$ 2
Current liabilities	(3)	(2)	—	—
Noncurrent liabilities	(153)	(212)	—	—
Net recorded (liability) asset	\$ (156)	\$ (214)	\$ 20	\$ 2
SoCalGas:				
Noncurrent assets	\$ —	\$ —	\$ 371	\$ 270
Current liabilities	(4)	(3)	—	—
Noncurrent liabilities	(785)	(760)	—	—
Net recorded (liability) asset	\$ (789)	\$ (763)	\$ 371	\$ 270

Amounts recorded in AOCI at December 31, net of income tax effects and amounts recorded as regulatory assets, are as follows:

AMOUNTS IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
Sempra Energy Consolidated⁽¹⁾:				
Net actuarial (loss) gain	\$ (113)	\$ (114)	\$ 10	\$ 8
Prior service cost	(14)	(12)	—	—
Total	\$ (127)	\$ (126)	\$ 10	\$ 8
SDG&E:				
Net actuarial loss	\$ (9)	\$ (4)		
Prior service cost	(7)	(6)		
Total	\$ (16)	\$ (10)		
SoCalGas:				
Net actuarial loss	\$ (7)	\$ (6)		
Prior service cost	(3)	(2)		
Total	\$ (10)	\$ (8)		

⁽¹⁾ Includes discontinued operations.

Sempra Energy, SDG&E and SoCalGas each have a funded pension plan. The following table shows the obligations of funded pension plans with benefit obligations in excess of plan assets at December 31:

OBLIGATIONS OF FUNDED PENSION PLANS

(Dollars in millions)

	2019	2018
Sempra Energy Consolidated:		
Projected benefit obligation	\$ 3,578	\$ 3,130
Accumulated benefit obligation	3,229	2,894
Fair value of plan assets	2,662	2,160
SDG&E:		
Projected benefit obligation	\$ 861	\$ 788
Accumulated benefit obligation	818	762
Fair value of plan assets	739	600
SoCalGas:		
Projected benefit obligation	\$ 2,505	\$ 2,123
Accumulated benefit obligation	2,208	1,919
Fair value of plan assets	1,737	1,385

We also have unfunded pension plans at Sempra Energy, SDG&E, SoCalGas and IEnova. The following table shows the obligations of unfunded pension plans at December 31:

OBLIGATIONS OF UNFUNDED PENSION PLANS

(Dollars in millions)

	2019	2018
Sempra Energy Consolidated:		
Projected benefit obligation	\$ 190	\$ 209
Accumulated benefit obligation	158	186
SDG&E:		
Projected benefit obligation	\$ 34	\$ 26
Accumulated benefit obligation	27	19
SoCalGas:		
Projected benefit obligation	\$ 21	\$ 25
Accumulated benefit obligation	17	21

Sempra Energy, SDG&E and SoCalGas each have a funded other postretirement benefit plan. The following table shows the obligations of funded other postretirement benefit plans with accumulated postretirement benefit obligations in excess of plan assets at December 31:

OBLIGATIONS OF FUNDED OTHER POSTRETIREMENT BENEFIT PLANS

(Dollars in millions)

	2019	2018
Sempra Energy Consolidated:		
Accumulated postretirement benefit obligation	\$ 32	\$ 30
Fair value of plan assets	25	20

We also have unfunded other postretirement benefit plans at Sempra Energy. The following table shows the obligations of unfunded other postretirement benefit plans at December 31:

OBLIGATIONS OF UNFUNDED OTHER POSTRETIREMENT BENEFIT PLANS

(Dollars in millions)

	2019	2018
Sempra Energy Consolidated:		
Accumulated postretirement benefit obligation	\$ 16	\$ 22

Net Periodic Benefit Cost

The following tables provide the components of net periodic benefit cost and pretax amounts recognized in OCI for the years ended December 31:

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI

SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2019	2018	2017	2019	2018	2017
NET PERIODIC BENEFIT COST						
Service cost	\$ 110	\$ 124	\$ 117	\$ 17	\$ 21	\$ 21
Interest cost	139	140	150	36	36	39
Expected return on assets	(144)	(157)	(161)	(71)	(70)	(66)
Amortization of:						
Prior service cost	12	11	11	—	1	1
Actuarial loss (gain)	36	22	35	(10)	(6)	(4)
Settlement charges	28	66	38	—	—	—
Special termination benefits	—	—	—	—	5	18
Net periodic benefit cost	181	206	190	(28)	(13)	9
Regulatory adjustment	77	(30)	(42)	29	17	—
Total expense recognized	258	176	148	1	4	9
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS RECOGNIZED IN OCI⁽¹⁾						
Net loss (gain)	17	56	—	(3)	(4)	(2)
Prior service cost	5	12	1	—	—	—
Amortization of actuarial loss	(13)	(12)	(10)	—	—	—
Amortization of prior service cost	(3)	(2)	(1)	—	—	—
Settlements	(28)	(12)	(8)	—	—	—
Total recognized in OCI	(22)	42	(18)	(3)	(4)	(2)
Total recognized in net periodic benefit cost and OCI	\$ 236	\$ 218	\$ 130	\$ (2)	\$ —	\$ 7

⁽¹⁾ Includes discontinued operations.

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI
SAN DIEGO GAS & ELECTRIC COMPANY
(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2019	2018	2017	2019	2018	2017
NET PERIODIC BENEFIT COST						
Service cost	\$ 30	\$ 30	\$ 29	\$ 4	\$ 5	\$ 5
Interest cost	34	35	38	7	7	8
Expected return on assets	(38)	(47)	(47)	(11)	(13)	(11)
Amortization of:						
Prior service cost	3	2	1	2	3	3
Actuarial loss (gain)	11	1	9	(2)	(3)	—
Settlement charges	—	26	—	—	—	—
Special termination benefits	—	—	—	—	3	—
Net periodic benefit cost	40	47	30	—	2	5
Regulatory adjustment	14	(8)	(8)	—	—	—
Total expense recognized	54	39	22	—	2	5
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS RECOGNIZED IN OCI						
Net loss (gain)	5	(1)	2	—	—	—
Prior service cost	2	8	—	—	—	—
Amortization of actuarial loss	—	(1)	(1)	—	—	—
Amortization of prior service cost	(1)	—	—	—	—	—
Settlements	—	(4)	—	—	—	—
Total recognized in OCI	6	2	1	—	—	—
Total recognized in net periodic benefit cost and OCI	\$ 60	\$ 41	\$ 23	\$ —	\$ 2	\$ 5

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI
SOUTHERN CALIFORNIA GAS COMPANY
(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2019	2018	2017	2019	2018	2017
NET PERIODIC BENEFIT COST						
Service cost	\$ 68	\$ 81	\$ 76	\$ 12	\$ 15	\$ 14
Interest cost	91	92	98	27	27	29
Expected return on assets	(94)	(98)	(103)	(58)	(56)	(53)
Amortization of:						
Prior service cost (credit)	8	8	9	(2)	(3)	(3)
Actuarial loss (gain)	16	13	19	(8)	(2)	(3)
Settlement charges	—	32	30	—	—	—
Special termination benefits	—	—	—	—	2	18
Net periodic benefit cost	89	128	129	(29)	(17)	2
Regulatory adjustment	63	(22)	(34)	29	17	—
Total expense recognized	152	106	95	—	—	2
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS RECOGNIZED IN OCI						
Net loss	2	1	—	—	—	—
Prior service cost	3	—	—	—	—	—
Transfer of actuarial loss	(4)	—	—	—	—	—
Transfer of prior service cost	(1)	—	—	—	—	—
Amortization of actuarial loss	(1)	—	—	—	—	—
Amortization of prior service cost	—	(1)	(1)	—	—	—
Total recognized in OCI	(1)	—	(1)	—	—	—
Total recognized in net periodic benefit cost and OCI	\$ 151	\$ 106	\$ 94	\$ —	\$ —	\$ 2

Assumptions for Pension and Other Postretirement Benefit Plans

Benefit Obligation and Net Periodic Benefit Cost

Except for the IEnova plans, we develop the discount rate assumptions 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 flows to provide for projected benefit payments of the plan. The selected bond portfolio is derived from a universe of corporate bonds with a Bloomberg Composite of AA or higher. After the bond portfolio is selected, a single interest rate is determined that equates the present value of the plans' projected benefit payments discounted at this rate with the market value of the bonds selected.

We develop the discount rate assumptions for the plans at IEnova by constructing a synthetic government zero coupon bond yield curve from the available market data, based on duration matching, and we add a risk spread to allow for the yields of high-quality corporate bonds. Such method is required when there is no deep market for high quality corporate bonds.

Long-term return on assets is based on the weighted-average of the plans' investment allocation as of the measurement date and the expected returns for those asset types.

Interest crediting rate is based on an average 30-year Treasury bond from the month of November of the preceding year.

We amortize prior service cost using straight line amortization over average future service (or average expected lifetime for plans where participants are substantially inactive employees), which is an alternative method allowed under U.S. GAAP.

The significant assumptions affecting benefit obligation and net periodic benefit cost are as follows:

WEIGHTED-AVERAGE ASSUMPTIONS USED TO DETERMINE BENEFIT OBLIGATION

AT DECEMBER 31

	Pension benefits		Other postretirement benefits	
	2019	2018	2019	2018
Sempra Energy Consolidated:				
Discount rate	3.49%	4.29%	3.54%	4.29%
Interest crediting rate ⁽¹⁾⁽²⁾	2.28	3.36	2.28	3.36
Rate of compensation increase	2.70-10.00	2.00-10.00	2.70-10.00	2.00-10.00
SDG&E				
Discount rate	3.44%	4.29%	3.55%	4.30%
Interest crediting rate ⁽¹⁾⁽²⁾	2.28	3.36	2.28	3.36
Rate of compensation increase	2.70-10.00	2.00-10.00	2.70-10.00	2.00-10.00
SoCalGas:				
Discount rate	3.50%	4.30%	3.55%	4.30%
Interest crediting rate ⁽¹⁾⁽²⁾	2.28	3.36	2.28	3.36
Rate of compensation increase	2.70-10.00	2.00-10.00	2.70-10.00	2.00-10.00

⁽¹⁾ Interest crediting rate for pension benefits applies only to funded cash balance plans.

⁽²⁾ Interest crediting rate for other postretirement benefits applies only to interest bearing health retirement accounts at SDG&E and SoCalGas.

WEIGHTED-AVERAGE ASSUMPTIONS USED TO DETERMINE NET PERIODIC BENEFIT COST
YEARS ENDED DECEMBER 31

	Pension benefits			Other postretirement benefits		
	2019	2018	2017	2019	2018	2017
Sempra Energy Consolidated:						
Discount rate	4.29%	3.64%	4.07%	4.29%	3.68%	4.18%
Expected return on plan assets	7.00	7.00	7.00	6.48	6.49	6.47
Interest crediting rate ⁽¹⁾⁽²⁾	3.36	2.80	2.86	3.36	2.80	2.86
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SDG&E						
Discount rate	4.29%	3.64%	4.08%	4.30%	3.65%	4.15%
Expected return on plan assets	7.00	7.00	7.00	6.92	6.94	6.91
Interest crediting rate ⁽¹⁾⁽²⁾	3.36	2.80	2.86	3.36	2.80	2.86
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SoCalGas:						
Discount rate	4.30%	3.65%	4.10%	4.30%	3.70%	4.20%
Expected return on plan assets	7.00	7.00	7.00	6.38	6.38	6.37
Interest crediting rate ⁽¹⁾⁽²⁾	3.36	2.80	2.86	3.36	2.80	2.86
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00

⁽¹⁾ Interest crediting rate for pension benefits applies only to funded cash balance plans.

⁽²⁾ Interest crediting rate for other postretirement benefits applies only to interest bearing health retirement accounts at SDG&E and SoCalGas.

Health Care Cost Trend Rates

Assumed health care cost trend rates have a significant effect on the amounts that we report for the health care plan costs. Following are the health care cost trend rates applicable to our postretirement benefit plans:

ASSUMED HEALTH CARE COST TREND RATES
AT DECEMBER 31

	Other postretirement benefit plans					
	Pre-65 retirees			Retirees aged 65 years and older		
	2019	2018	2017	2019	2018	2017
Health care cost trend rate assumed for next year	6.25%	6.50%	7.00%	4.75%	4.75%	5.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend)	4.75%	4.75%	5.00%	4.50%	4.50%	4.50%
Year the rate reaches the ultimate trend	2025	2025	2022	2022	2022	2022

Plan Assets
Investment Allocation Strategy for Sempra Energy's Pension Master Trust

Sempra Energy's pension master trust holds the investments for our pension plans and a portion of the investments for our PBOP plans. We maintain additional trusts, as we discuss below, for certain of the California Utilities' PBOP plans. Other than through indexing strategies, the trusts do not invest in securities of Sempra Energy.

The current asset allocation objective for the pension master trust is to protect the funded status of the plans while generating sufficient returns to cover future benefit payments and accruals. We assess the portfolio performance by comparing actual returns with relevant benchmarks. Currently, the pension plans' target asset allocations are:

- 35% domestic equity
- 24% international equity
- 18% long credit
- 8% ultra-long duration government securities
- 5% global real estate investment trusts
- 5% return-seeking credit
- 5% real assets

The asset allocation of the plans is reviewed by our Plan Funding Committee and our Pension and Benefits Investment Committee (the Committees) on a regular basis. When evaluating strategic asset allocations, the Committees consider many variables, including:

- long-term cost
- variability and level of contributions
- funded status
- a range of expected outcomes over varying confidence levels

This allocation results in a 74% target allocation to return-seeking assets and a 26% target allocation to risk-mitigating assets. We maintain asset allocations at strategic levels with reasonable bands of variance.

In accordance with the Sempra Energy pension investment guidelines, derivative financial instruments may be used by the pension master trust's equity and fixed income portfolio investment managers to equitize cash, hedge certain exposures, and as substitutes for certain types of fixed income securities.

Rate of Return Assumption

The expected return on assets in our pension and PBOP plans is based on the weighted-average of the plans' investment allocations to specific asset classes as of the measurement date. We arrive at a 7% expected return on assets by considering both the historical and forecasted long-term rates of return on those asset classes. We expect a return of between 5% and 9% on return-seeking assets and between 1% and 4% for risk-mitigating assets. Certain trusts that hold assets for the SDG&E other postretirement benefit plan are subject to taxation, which impacts the expected after-tax return on assets in the plan.

Concentration of Risk

Plan assets are diversified across global equity and bond markets, and concentration of risk in any one economic, industry, maturity or geographic sector is limited.

Investment Strategy for SDG&E's and SoCalGas' Other Postretirement Benefit Plans

SDG&E's and SoCalGas' PBOP plans are funded by cash contributions from SDG&E and SoCalGas and their current retirees. The assets of these plans are placed into the pension master trust and other Voluntary Employee Beneficiary Association trusts. Certain assets of SDG&E's and SoCalGas' PBOP plans are held in the pension master trust, which invests a portion of the assets in completion portfolios that aim to reduce interest rate risk, thereby resulting in an overall target allocation of 38% to return-seeking assets and 62% to risk-mitigating assets for these well-funded plans. Certain of SoCalGas' PBOP plans are held in a Voluntary Employee Benefit Association trust that also utilizes a completion portfolio, resulting in a target allocation of 25% to return-seeking assets and 75% to risk-mitigating assets. SDG&E's and SoCalGas' assets held in other Voluntary Employee Beneficiary Association trusts are invested in accordance with a de-risking glidepath that reduces the assets' exposure to risk as the trusts become better funded. These specific allocations are periodically reviewed to ensure that plan assets are best positioned to meet plan obligations.

Fair Value of Pension and Other Postretirement Benefit Plan Assets

We classify the investments in Sempra Energy's pension master trust and the trusts for the California Utilities' PBOP plans based on the fair value hierarchy, except for certain investments measured at NAV.

The following are descriptions of the valuation methods and assumptions we use to estimate the fair values of investments held by pension and other postretirement benefit plan trusts.

Equity Securities – Equity securities are valued using quoted prices listed on nationally recognized securities exchanges.

Fixed Income Securities – Certain fixed income securities are valued at the closing price reported in the active market in which the security is traded. Other fixed income securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available for identical or similar securities, the security is valued under a discounted cash flow approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks. Certain high yield fixed-income securities are valued by applying a price adjustment to the bid side to calculate a mean and ask value. Adjustments can vary based on maturity, credit standing, and reported trade frequencies. The bid to ask spread is determined by the investment manager based on the review of the available market information.

Registered Investment Companies – Investments in mutual funds sponsored by a registered investment company are valued based on exchange listed prices. Where the value is a quoted price in an active market, the investment is classified within Level 1 of the fair value hierarchy. Investments in certain fixed income securities are valued under a discounted cash flow approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks for the remaining fixed income securities.

Common/Collective Trusts – Investments in common/collective trust funds are valued based on the NAV of units owned, which is based on the current fair value of the funds' underlying assets.

Private Equity Funds – These funds consist of investments in private equities that are held by limited partnerships following various strategies, including private equity and corporate finance. These partnerships generally have limited lives of 10 years, after which liquidating distributions will be received. The value is determined based on the NAV of the proportionate share of an ownership interest in partners' capital. Holdings in these types of private equity funds are negligible, as the funds are well past their expected investment term and have distributed the bulk of proceeds from investment sales.

Derivative Financial Instruments – Futures contracts that are publicly traded in active markets are valued at closing prices as of the last business day of the year. Forward currency contracts are valued at the prevailing forward exchange rate of the underlying currencies, and unrealized gain (loss) is recorded daily. Fixed income futures and options are marked to market daily. Equity index futures contracts are valued at the last sales price quoted on the exchange on which they primarily trade.

While management believes the valuation methods described above are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

We provide more discussion of fair value measurements in Notes 1 and 12. The following tables set forth by level within the fair value hierarchy a summary of the investments in our pension and other postretirement benefit plan trusts measured at fair value on a recurring basis.

SDG&E and SoCalGas each hold a proportionate share of investment assets in the pension master trust at Sempra Energy Consolidated. The fair values of our pension plan assets by asset category are as follows:

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF PENSION PLANS

(Dollars in millions)

	Fair value at December 31, 2019		
	Level 1	Level 2	Total
Sempra Energy Consolidated:			
Cash and cash equivalents	\$ 17	\$ —	\$ 17
Equity securities:			
Domestic	923	—	923
International	555	1	556
Registered investment companies	96	—	96
Fixed income securities:			
Domestic government bonds	228	39	267
International government bonds	—	9	9
Domestic corporate bonds	—	346	346
International corporate bonds	—	62	62
Registered investment companies	—	2	2
Total investment assets in the fair value hierarchy	\$ 1,819	\$ 459	2,278
Accounts receivable/payable, net			(38)
Investments measured at NAV:			
Common/collective trusts			417
Private equity funds			5
Total investment assets			\$ 2,662
SDG&Es proportionate share of investment assets			\$ 739
SoCalGas' proportionate share of investment assets			\$ 1,737
Fair value at December 31, 2018			
	Level 1	Level 2	Total
Sempra Energy Consolidated:			
Cash and cash equivalents	\$ 14	\$ —	\$ 14
Equity securities:			
Domestic	727	—	727
International	437	—	437
Registered investment companies	74	—	74
Fixed income securities:			
Domestic government bonds	197	29	226
International government bonds	—	8	8
Domestic corporate bonds	—	311	311
International corporate bonds	—	53	53
Registered investment companies	—	1	1
Total investment assets in the fair value hierarchy	\$ 1,449	\$ 402	1,851
Accounts receivable/payable, net			(21)
Investments measured at NAV:			
Common/collective trusts			326
Private equity funds			4
Total investment assets			\$ 2,160
SDG&Es proportionate share of investment assets			\$ 600
SoCalGas' proportionate share of investment assets			\$ 1,385

The fair values by asset category of the PBOP plan assets held in the pension master trust and in the additional trusts for SoCalGas' PBOP plans and SDG&E's PBOP plan trusts are as follows:

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF OTHER POSTRETIREMENT BENEFIT PLANS

(Dollars in millions)

	Fair value at December 31, 2019		
	Level 1	Level 2	Total
SDG&E			
Equity securities:			
Domestic	\$ 21	\$ —	\$ 21
International	13	—	13
Registered investment companies	68	—	68
Fixed income securities:			
Domestic government bonds	32	1	33
Domestic corporate bonds	—	8	8
International corporate bonds	—	1	1
Registered investment companies	—	8	8
Total investment assets in the fair value hierarchy	134	18	152
Accounts receivable/payable, net			(2)
Investments measured at NAV – Common/collective trusts			47
Total investment assets			197
SoCalGas:			
Cash and cash equivalents	3	—	3
Equity securities:			
Domestic	78	—	78
International	48	—	48
Registered investment companies	52	—	52
Fixed income securities:			
Domestic government bonds	267	21	288
International government bonds	1	10	11
Domestic corporate bonds	—	309	309
International corporate bonds	—	40	40
Registered investment companies	—	75	75
Derivative financial instruments	3	—	3
Total investment assets in the fair value hierarchy	452	455	907
Accounts receivable/payable, net			(5)
Investments measured at NAV – Common/collective trusts			157
Total investment assets			1,059
Other Sempra Energy:			
Equity securities:			
Domestic	9	—	9
International	4	—	4
Fixed income securities:			
Domestic government bonds	3	1	4
Domestic corporate bonds	—	3	3
International corporate bonds	—	1	1
Total investment assets in the fair value hierarchy	16	5	21
Investments measured at NAV – Common/collective trusts			4
Total other Sempra Energy investment assets			25
Total Sempra Energy Consolidated investment assets in the fair value hierarchy	\$ 602	\$ 478	
Total Sempra Energy Consolidated investment assets			\$ 1,281

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF OTHER POSTRETIREMENT BENEFIT PLANS
(Dollars in millions)

	Fair value at December 31, 2018		
	Level 1	Level 2	Total
SDG&E			
Cash and cash equivalents	\$ 1	\$ —	\$ 1
Equity securities:			
Domestic	37	—	37
International	22	—	22
Registered investment companies	59	—	59
Fixed income securities:			
Domestic government bonds	10	1	11
Domestic corporate bonds	—	16	16
International corporate bonds	—	3	3
Registered investment companies	—	7	7
Total investment assets in the fair value hierarchy	129	27	156
Accounts receivable/payable, net			(1)
Investments measured at NAV – Common/collective trusts			17
Total investment assets			172
SoCalGas:			
Cash and cash equivalents	6	—	6
Equity securities:			
Domestic	66	—	66
International	39	—	39
Registered investment companies	62	—	62
Fixed income securities:			
Domestic government bonds	236	13	249
International government bonds	1	4	5
Domestic corporate bonds	—	175	175
International corporate bonds	—	21	21
Registered investment companies	—	64	64
Derivative financial instruments	(4)	—	(4)
Total investment assets in the fair value hierarchy	406	277	683
Accounts receivable/payable, net			(4)
Investments measured at NAV – Common/collective trusts			237
Total investment assets			916
Other Sempra Energy:			
Equity securities:			
Domestic	6	—	6
International	4	—	4
Fixed income securities:			
Domestic government bonds	2	—	2
Domestic corporate bonds	—	2	2
Registered investment companies	—	1	1
Total investment assets in the fair value hierarchy	12	3	15
Investments measured at NAV – Common/collective trusts			4
Private equity funds			1
Total other Sempra Energy investment assets			20
Total Sempra Energy Consolidated investment assets in the fair value hierarchy	\$ 547	\$ 307	
Total Sempra Energy Consolidated investment assets			\$ 1,108

Future Payments

We expect to contribute the following amounts to our pension and PBOP plans in 2020:

EXPECTED CONTRIBUTIONS

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Pension plans	\$ 268	\$ 53	\$ 154
Other postretirement benefit plans	7	1	1

The following table shows the total benefits we expect to pay for the next 10 years to current employees and retirees from the plans or from company assets.

EXPECTED BENEFIT PAYMENTS

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	Pension benefits	Other postretirement benefits	Pension benefits	Other postretirement benefits	Pension benefits	Other postretirement benefits
2020	\$ 410	\$ 50	\$ 115	\$ 10	\$ 229	\$ 35
2021	263	48	69	10	166	35
2022	258	48	64	10	162	35
2023	243	48	64	10	156	35
2024	239	48	62	10	153	35
2025-2029	1,128	240	283	48	725	176

SAVINGS PLANS

Sempra Energy Consolidated, SDG&E and SoCalGas offer trusted savings plans to all employees. Employee participation, employee contributions and employer matching contributions are subject to the provisions of the respective plans, and for employee contributions, limits imposed by the respective governmental authorities.

Employer contributions to the savings plans were as follows:

EMPLOYER CONTRIBUTIONS TO SAVINGS PLANS

(Dollars in millions)

	2019	2018	2017
Sempra Energy Consolidated	\$ 44	\$ 43	\$ 41
SDG&E	15	15	14
SoCalGas	24	23	22

The market value of Sempra Energy common stock held by the savings plans was \$1.3 billion and \$1.0 billion at December 31, 2019 and 2018, respectively.

NOTE 10. SHARE-BASED COMPENSATION

SEMPRA ENERGY EQUITY COMPENSATION PLANS

Sempra Energy has share-based compensation plans intended to align employee and shareholder objectives related to the long-term growth of Sempra Energy. The plans permit a wide variety of share-based awards, including:

- nonqualified stock options
- incentive stock options

- restricted stock awards
- restricted stock units
- stock appreciation rights
- performance awards
- stock payments
- dividend equivalents

Eligible employees, including those from the California Utilities, participate in Sempra Energy's share-based compensation plans as a component of their compensation package.

In the three years ended December 31, 2019, Sempra Energy had the following types of equity awards outstanding:

- *Nonqualified Stock Options*: Options to purchase common stock have an exercise price equal to the market price of the common stock at the date of grant, are service-based, become exercisable over a three-year period (for awards granted in 2019) or over a four-year period (for awards granted in 2010 or earlier), and expire 10 years from the date of grant. Vesting and/or the ability to exercise may be accelerated upon a change in control, in accordance with severance pay agreements or in accordance with the terms of the grant. Options are subject to forfeiture or earlier expiration following termination of employment, subject to certain exceptions.
- *Performance-Based Restricted Stock Units*: These RSU awards generally vest in Sempra Energy common stock at the end of three-year (for awards granted during or after 2015) or four-year performance periods (for awards granted prior to 2015) based on Sempra Energy's total return to shareholders relative to that of specified market indices or based on the compound annual growth rate of Sempra Energy's EPS. The comparative market indices for the awards that vest based on total return to shareholders are the S&P 500 Utilities Index and the S&P 500 Index. We use long-term analyst consensus growth estimates for S&P 500 Utilities Index peer companies to develop our targets for awards that vest based on EPS growth.
 - For awards granted in 2013 or earlier, if Sempra Energy's total return to shareholders exceeds target levels, up to an additional 50% of the number of granted RSUs may be issued.
 - For awards granted during or after 2014, up to an additional 100% of the granted RSUs may be issued if total return to shareholders or EPS growth exceeds target levels.
 - For awards granted in 2015 and 2016 and certain awards granted in 2017 and 2018 that vest based on Sempra Energy's total return to shareholders, a modifier adds 20% to the award's payout (as initially calculated based on total return to shareholders relative to that of specified market indices) for total shareholder return performance in the top quartile relative to historical benchmark data for Sempra Energy and reduces the award's payout by 20% for performance in the bottom quartile. However, in no event will more than an additional 100% of the granted RSUs be issued. If performance falls within the second or third quartiles, the modifier is not triggered, and the payout is based solely on total return to shareholders relative to that of specified market indices.

If Sempra Energy's total return to shareholders or EPS growth is below the target levels but above threshold performance levels, shares are subject to partial vesting on a pro rata basis.

- *Other Performance-Based Restricted Stock Units*: RSUs were granted in 2014 and 2015 in connection with the creation of Cameron LNG JV.
 - The 2014 awards vested in 2015 through 2017 as the Compensation Committee of Sempra Energy's board of directors determined that the objectives of the JV were achieved. Those awards vested on the anniversary of the grant date over a period of either two or three years.
 - The 2015 awards vested in 2019 as both of the following were achieved: (a) the Compensation Committee of Sempra Energy's board of directors determined that Sempra Energy achieved positive cumulative net income for fiscal years 2015 through 2017 and (b) Cameron LNG JV commenced commercial operations of the first train.
- *Service-Based Restricted Stock Units*: RSUs may also be service-based; these generally vest over three-year service periods (for awards granted in 2019), or at the end of three-year (for awards granted during 2015 through 2018) or four-year service periods (for awards granted prior to 2015).

For RSU awards, vesting may be subject to earlier forfeiture upon termination of employment and accelerated vesting upon a change in control under the applicable LTIP, in accordance with severance pay agreements, or at the discretion of the Compensation Committee of Sempra Energy's board of directors. Dividend equivalents on shares subject to RSUs are reinvested to purchase additional common shares that become subject to the same vesting conditions as the RSUs to which the dividends relate.

SHARE-BASED AWARDS AND COMPENSATION EXPENSE

At December 31, 2019, 7,662,352 common shares were authorized and available for future grants of share-based awards. Our practice is to satisfy share-based awards by issuing new shares rather than by open-market purchases.

We measure and recognize compensation expense for all share-based payment awards made to our employees and directors based on estimated fair values on the date of grant. We recognize compensation costs net of an estimated forfeiture rate (based on historical experience) and recognize the compensation costs for nonqualified stock options and RSUs on a straight-line basis over the requisite service period of the award, which is generally three or four years. However, for awards granted to retirement-eligible participants, the expense is recognized over the initial year in which the award was granted as the award requires service through the end of the year in which it was granted. For awards granted to participants who become eligible for retirement during the requisite service period, the expense is recognized over the period between the date of grant and the later of the end of the year in which the award was granted or the date the participant first becomes eligible for retirement. Substantially all awards outstanding are classified as equity instruments; therefore, we recognize additional paid in capital as we recognize the compensation expense associated with the awards. We recognize in earnings the tax benefits (or deficiencies) resulting from tax deductions that are in excess of (or less than) tax benefits related to compensation cost recognized for share-based payments.

Sempra Energy subsidiaries record an expense for the plans to the extent that subsidiary employees participate in the plans and/or the subsidiaries are allocated a portion of the Sempra Energy plans' corporate staff costs. Total share-based compensation expense for all of Sempra Energy's share-based awards was comprised as follows:

SHARE-BASED COMPENSATION EXPENSE

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated:			
Share-based compensation expense, before income taxes ⁽¹⁾	\$ 66	\$ 76	\$ 78
Income tax benefit ⁽¹⁾	(18)	(21)	(31)
	\$ 48	\$ 55	\$ 47
Capitalized share-based compensation cost	\$ 11	\$ 10	\$ 9
Excess income tax deficiency	\$ 4	\$ 15	\$ —
SDG&E			
Share-based compensation expense, before income taxes	\$ 10	\$ 12	\$ 13
Income tax benefit	(3)	(3)	(5)
	\$ 7	\$ 9	\$ 8
Capitalized share-based compensation cost	\$ 6	\$ 6	\$ 5
Excess income tax deficiency	\$ 1	\$ 3	\$ —
SoCalGas:			
Share-based compensation expense, before income taxes	\$ 15	\$ 16	\$ 17
Income tax benefit	(4)	(5)	(7)
	\$ 11	\$ 11	\$ 10
Capitalized share-based compensation cost	\$ 5	\$ 4	\$ 4
Excess income tax deficiency	\$ 1	\$ 2	\$ —

⁽¹⁾ Includes activity of awards issued from the IEnova 2013 LTIP, which settle in cash upon vesting based on the price of IEnova's common stock.

SEMPRA ENERGY NONQUALIFIED STOCK OPTIONS

We use a Black-Scholes option-pricing model to estimate the fair value of each nonqualified stock option grant. The use of a valuation model requires us to make certain assumptions about selected model inputs. Expected volatility is calculated based on a blend of the historical and implied volatility of Sempra Energy's common stock price. The average expected term for options is based on the vesting schedule, contractual term of the option, expected employee exercise and post-termination behavior. The risk-free interest rate is based on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term estimated at the date of the grant. All nonqualified stock options granted prior to 2019 were fully vested and compensation cost on such stock options was fully recognized by December 31, 2014. In January 2019, Sempra Energy's board of directors granted 261,075 nonqualified stock options that are exercisable over a three-year period. The weighted-average per-share fair value for options

granted was \$13.20 in 2019. To calculate this fair value, we used the Black-Scholes model with the following weighted-average assumptions:

KEY ASSUMPTIONS FOR STOCK OPTIONS GRANTED

	Year ended December 31, 2019
Stock price volatility	18.63%
Expected term	5.34 years
Risk-free rate of return	2.49%
Annual dividend yield	3.35%

The following table shows a summary of nonqualified stock options at December 31, 2019 and activity for the year then ended:

NONQUALIFIED STOCK OPTIONS

	Common shares under options	Weighted- average exercise price	Weighted- average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2019	56,940	\$ 54.63		
Granted	261,075	\$ 106.76		
Exercised	(52,540)	\$ 54.52		
Forfeited/canceled	(17,898)	\$ 106.76		
Outstanding at December 31, 2019	<u>247,577</u>	\$ 105.86	8.85	\$ 11
Vested or expected to vest at December 31, 2019	237,236	\$ 105.82	8.84	\$ 11
Exercisable at December 31, 2019	4,400	\$ 55.90	0.01	\$ —

The aggregate intrinsic value at December 31, 2019 is the total of the difference between Sempra Energy's closing common stock price and the exercise price for all in-the-money options. The aggregate intrinsic value for nonqualified stock options exercised in the last three years was:

- \$4 million in 2019
- \$9 million in 2018
- \$9 million in 2017

A negligible amount of total compensation cost related to nonvested stock options not yet recognized as of December 31, 2019 is expected to be recognized over a weighted-average period of 2.03 years.

We received cash of \$3 million from stock option exercises during 2019.

SEMPRA ENERGY RESTRICTED STOCK UNITS

We use a Monte-Carlo simulation model to estimate the fair value of our RSUs that vest based on Sempra Energy's total return to shareholders. Our determination of fair value is affected by the historical volatility of the common stock price for Sempra Energy and its peer group companies. The valuation also is affected by the risk-free rates of return and a number of other variables. Below are key assumptions for RSUs granted in the last three years:

KEY ASSUMPTIONS FOR RSUs GRANTED

	Years ended December 31,		
	2019	2018	2017
Stock price volatility	17.74%	17.46%	17.24%
Risk-free rate of return	2.46%	2.00%	1.49%

The following table shows a summary of RSUs at December 31, 2019 and activity for the year then ended:

RESTRICTED STOCK UNITS

	Performance-based restricted stock units		Service-based restricted stock units	
	Units	Weighted- average grant-date fair value	Units	Weighted- average grant-date fair value
Nonvested at January 1, 2019	1,242,169	\$ 106.11	402,361	\$ 105.01
Granted	389,825	\$ 113.54	260,594	\$ 112.50
Vested	(142,820)	\$ 100.28	(209,395)	\$ 102.68
Forfeited	(402,193)	\$ 103.34	(37,773)	\$ 110.25
Nonvested at December 31, 2019 ⁽¹⁾	1,086,981	\$ 109.85	415,787	\$ 119.96
Expected to vest at December 31, 2019	1,066,375	\$ 109.89	408,782	\$ 109.65

⁽¹⁾ Each RSU represents the right to receive one share of our common stock if applicable performance conditions are satisfied. For all performance-based RSUs, up to an additional 100% of the shares represented by the RSUs may be issued if Sempra Energy exceeds target performance conditions.

In 2019, 2018 and 2017, the total fair value of RSU shares vested during the year was \$36 million, \$32 million and \$45 million, respectively.

The \$32 million of total compensation cost related to nonvested RSUs not yet recognized as of December 31, 2019 is expected to be recognized over a weighted-average period of 2.07 years. The weighted-average per-share fair values for performance-based RSUs granted were \$105.03 and \$110.54 in 2018 and 2017, respectively. The weighted-average per-share fair values for service-based RSUs granted were \$107.60 and \$101.88 in 2018 and 2017, respectively.

NOTE 11. DERIVATIVE FINANCIAL INSTRUMENTS

We use derivative instruments primarily to manage exposures arising in the normal course of business. Our principal exposures are commodity market risk, benchmark interest rate risk and foreign exchange rate exposures. Our use of derivatives for these risks is integrated into the economic management of our anticipated revenues, anticipated expenses, assets and liabilities. Derivatives may be effective in mitigating these risks (1) that could lead to declines in anticipated revenues or increases in anticipated expenses, or (2) that our asset values may fall or our liabilities increase. Accordingly, our derivative activity summarized below generally represents an impact that is intended to offset associated revenues, expenses, assets or liabilities that are not included in the tables below.

In certain cases, we apply the normal purchase or sale exception to derivative instruments and have other commodity contracts that are not derivatives. These contracts are not recorded at fair value and are therefore excluded from the disclosures below.

In all other cases, we record derivatives at fair value on the Consolidated Balance Sheets. We have derivatives that are (1) cash flow hedges, (2) fair value hedges, or (3) undesignated. Depending on the applicability of hedge accounting and, for the California Utilities and other operations subject to regulatory accounting, the requirement to pass impacts through to customers, the impact of derivative instruments may be offset in OCI (cash flow hedges), on the balance sheet (regulatory offsets), or recognized in earnings (fair value hedges). We classify cash flows from the principal settlements of cross-currency swaps that hedge exposure related to Mexican peso-denominated debt as financing activities and settlements of other derivative instruments as operating activities on the Consolidated Statements of Cash Flows.

HEDGE ACCOUNTING

We may designate a derivative as a cash flow hedging instrument if it effectively converts anticipated cash flows associated with revenues or expenses to a fixed dollar amount. We may utilize cash flow hedge accounting for derivative commodity instruments, foreign currency instruments and interest rate instruments. Designating cash flow hedges is dependent on the business context in which the instrument is being used, the effectiveness of the instrument in offsetting the risk that the future cash flows of a given revenue or expense item may vary, and other criteria.

ENERGY DERIVATIVES

Our market risk is primarily related to natural gas and electricity price volatility and the specific physical locations where we transact. We use energy derivatives to manage these risks. The use of energy derivatives in our various businesses depends on the particular energy market, and the operating and regulatory environments applicable to the business, as follows:

- The California Utilities use natural gas and electricity derivatives, for the benefit of customers, with the objective of managing price risk and basis risks, and stabilizing and lowering natural gas and electricity costs. These derivatives include fixed price natural gas and electricity positions, options, and basis risk instruments, which are either exchange-traded or over-the-counter financial instruments, or bilateral physical transactions. This activity is governed by risk management and transacting activity plans that have been filed with and approved by the CPUC. Natural gas and electricity derivative activities are recorded as commodity costs that are offset by regulatory account balances and are recovered in rates. Net commodity cost impacts on the Consolidated Statements of Operations are reflected in Cost of Electric Fuel and Purchased Power or in Cost of Natural Gas.
- SDG&E is allocated and may purchase CRRs, which serve to reduce the regional electricity price volatility risk that may result from local transmission capacity constraints. Unrealized gains and losses do not impact earnings, as they are offset by regulatory account balances. Realized gains and losses associated with CRRs, which are recoverable in rates, are recorded in Cost of Electric Fuel and Purchased Power on the Consolidated Statements of Operations.
- Sempra Mexico and Sempra LNG may use natural gas and electricity derivatives, as appropriate, to optimize the earnings of their assets which support the following businesses: LNG, natural gas transportation and storage, and power generation. Gains and losses associated with undesignated derivatives are recognized in Energy-Related Businesses Revenues or in Energy-Related Businesses Cost of Sales on the Consolidated Statements of Operations. Certain of these derivatives may also be designated as cash flow hedges. Sempra Mexico may also use natural gas energy derivatives with the objective of managing price risk and lowering natural gas prices at its distribution operations. These derivatives, which are recorded as commodity costs that are offset by regulatory account balances and recovered in rates, are recognized in Cost of Natural Gas on the Consolidated Statements of Operations.
- From time to time, our various businesses, including the California Utilities, may use other energy derivatives to hedge exposures such as the price of vehicle fuel and GHG allowances.

The following table summarizes net energy derivative volumes.

NET ENERGY DERIVATIVE VOLUMES

(Quantities in millions)

Commodity	Unit of measure	December 31,	
		2019	2018
Sempra Energy Consolidated:			
Natural gas	MMBtu	32	35
Electricity	MWh	2	2
Congestion revenue rights	MWh	48	52
SDG&E			
Natural gas	MMBtu	37	33
Electricity	MWh	2	2
Congestion revenue rights	MWh	48	52
SoCalGas:			
Natural gas	MMBtu	2	—

In addition to the amounts noted above, we use commodity derivatives to manage risks associated with the physical locations of contractual obligations and assets, such as natural gas purchases and sales.

INTEREST RATE DERIVATIVES

We are exposed to interest rates primarily as a result of our current and expected use of financing. The California Utilities, as well as Sempra Energy and its other subsidiaries and JVs, periodically enter into interest rate derivative agreements intended to moderate our exposure to interest rates and to lower our overall costs of borrowing. In addition, we may utilize interest rate swaps, typically designated as cash flow hedges, to lock in interest rates on outstanding debt or in anticipation of future financings. Separately, Otay Mesa VIE entered into interest rate swap agreements, designated as cash flow hedges, to moderate its exposure to interest rate changes.

The following table presents the net notional amounts of our interest rate derivatives, excluding JVs.

INTEREST RATE DERIVATIVES

(Dollars in millions)

	December 31, 2019		December 31, 2018	
	Notional debt	Maturities	Notional debt	Maturities
Sempra Energy Consolidated:				
Cash flow hedges ⁽¹⁾	\$ 1,445	2020-2034	\$ 594	2019-2032
SDG&E				
Cash flow hedge ⁽¹⁾	—	—	142	2019

⁽¹⁾ Includes Otay Mesa VIE. All of SDG&E's interest rate derivatives relate to Otay Mesa VIE. On August 14, 2019, OMEC LLC paid in full its variable-rate loan and terminated its interest rate swaps.

FOREIGN CURRENCY DERIVATIVES

We utilize cross-currency swaps to hedge exposure related to Mexican peso-denominated debt at our Mexican subsidiaries and JVs. These cash flow hedges exchange our Mexican peso-denominated principal and interest payments into the U.S. dollar and swap Mexican variable interest rates for U.S. fixed interest rates. From time to time, Sempra Mexico and its JVs may use other foreign currency derivatives to hedge exposures related to cash flows associated with revenues from contracts denominated in Mexican pesos that are indexed to the U.S. dollar.

We are also exposed to exchange rate movements at our Mexican subsidiaries and JVs, which have U.S. dollar-denominated cash balances, receivables, payables and debt (monetary assets and liabilities) that give rise to Mexican currency exchange rate movements for Mexican income tax purposes. They also have deferred income tax assets and liabilities denominated in the Mexican peso, which must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. We utilize foreign currency derivatives as a means to manage the risk of exposure to significant fluctuations in our income tax expense and equity earnings from these impacts; however, we generally do not hedge our deferred income tax assets and liabilities or for inflation.

We also utilize foreign currency derivatives to hedge exposure to fluctuations in the Peruvian Sol related to the sale of our operations in Peru.

The following table presents the net notional amounts of our foreign currency derivatives, excluding JVs.

FOREIGN CURRENCY DERIVATIVES

(Dollars in millions)

	December 31, 2019		December 31, 2018	
	Notional amount	Maturities	Notional amount	Maturities
Sempra Energy Consolidated:				
Cross-currency swaps	\$ 306	2020-2023	\$ 306	2019-2023
Other foreign currency derivatives	1,796	2020-2021	1,158	2019-2020

FINANCIAL STATEMENT PRESENTATION

The Consolidated Balance Sheets reflect the offsetting of net derivative positions and cash collateral with the same counterparty when a legal right of offset exists. The following tables provide the fair values of derivative instruments on the Consolidated Balance Sheets, including the amount of cash collateral receivables that were not offset, as the cash collateral was in excess of liability positions.

DERIVATIVE INSTRUMENTS ON THE CONSOLIDATED BALANCE SHEETS
(Dollars in millions)

	December 31, 2019			
	Other current assets ⁽¹⁾	Other long-term assets	Other current liabilities	Deferred credits and other
Sempra Energy Consolidated:				
Derivatives designated as hedging instruments:				
Interest rate and foreign exchange instruments	\$ —	\$ 3	\$ (17)	\$ (140)
Derivatives not designated as hedging instruments:				
Foreign exchange instruments	41	—	(20)	—
Associated offsetting foreign exchange instruments	(20)	—	20	—
Commodity contracts not subject to rate recovery	34	11	(41)	(10)
Associated offsetting commodity contracts	(32)	(2)	32	2
Commodity contracts subject to rate recovery	41	76	(47)	(47)
Associated offsetting commodity contracts	(6)	(3)	6	3
Associated offsetting cash collateral	—	—	14	—
Net amounts presented on the balance sheet	58	85	(53)	(192)
Additional cash collateral for commodity contracts not subject to rate recovery	43	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	25	—	—	—
Total⁽²⁾	\$ 126	\$ 85	\$ (53)	\$ (192)
SDG&E:				
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	\$ 30	\$ 76	\$ (41)	\$ (47)
Associated offsetting commodity contracts	(4)	(3)	4	3
Associated offsetting cash collateral	—	—	14	—
Net amounts presented on the balance sheet	26	73	(23)	(44)
Additional cash collateral for commodity contracts subject to rate recovery	16	—	—	—
Total⁽²⁾	\$ 42	\$ 73	\$ (23)	\$ (44)
SoCalGas:				
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	\$ 11	\$ —	\$ (6)	\$ —
Associated offsetting commodity contracts	(2)	—	2	—
Net amounts presented on the balance sheet	9	—	(4)	—
Additional cash collateral for commodity contracts subject to rate recovery	9	—	—	—
Total	\$ 18	\$ —	\$ (4)	\$ —

⁽¹⁾ Included in Current Assets: Fixed-Price Contracts and Other Derivatives for SDG&E.

⁽²⁾ Normal purchase contracts previously measured at fair value are excluded.

DERIVATIVE INSTRUMENTS ON THE CONSOLIDATED BALANCE SHEETS
(Dollars in millions)

	December 31, 2018			
	Other current assets ⁽¹⁾	Other long-term assets	Other current liabilities	Deferred credits and other
Sempra Energy Consolidated:				
Derivatives designated as hedging instruments:				
Interest rate and foreign exchange instruments ⁽²⁾	\$ 2	\$ —	\$ (3)	\$ (147)
Derivatives not designated as hedging instruments:				
Commodity contracts not subject to rate recovery	153	7	(164)	(6)
Associated offsetting commodity contracts	(133)	(3)	133	3
Commodity contracts subject to rate recovery	64	233	(42)	(72)
Associated offsetting commodity contracts	(6)	(2)	6	2
Associated offsetting cash collateral	—	—	—	2
Net amounts presented on the balance sheet	80	235	(70)	(218)
Additional cash collateral for commodity contracts not subject to rate recovery	19	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	33	—	—	—
Total⁽³⁾	\$ 132	\$ 235	\$ (70)	\$ (218)
SDG&E				
Derivatives designated as hedging instruments:				
Interest rate instruments ⁽²⁾	\$ —	\$ —	\$ (1)	\$ —
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	60	233	(37)	(72)
Associated offsetting commodity contracts	(6)	(2)	6	2
Associated offsetting cash collateral	—	—	—	2
Net amounts presented on the balance sheet	54	231	(32)	(68)
Additional cash collateral for commodity contracts subject to rate recovery	28	—	—	—
Total⁽³⁾	\$ 82	\$ 231	\$ (32)	\$ (68)
SoCalGas:				
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	\$ 4	\$ —	\$ (5)	\$ —
Net amounts presented on the balance sheet	4	—	(5)	—
Additional cash collateral for commodity contracts subject to rate recovery	5	—	—	—
Total	\$ 9	\$ —	\$ (5)	\$ —

⁽¹⁾ Included in Current Assets: Fixed-Price Contracts and Other Derivatives for SDG&E

⁽²⁾ Includes Otay Mesa VIE. All of SDG&E's amounts relate to Otay Mesa VIE.

⁽³⁾ Normal purchase contracts previously measured at fair value are excluded.

The table below includes the effects of derivative instruments designated as cash flow hedges on the Consolidated Statements of Operations and in OCI and AOCI.

CASH FLOW HEDGE IMPACTS

(Dollars in millions)

	Pretax (loss) gain recognized in OCI			Location	Pretax (loss) gain reclassified from AOCI into earnings		
	Years ended December 31,				Years ended December 31,		
	2019	2018	2017		2019	2018	2017
Sempra Energy Consolidated:							
Interest rate and foreign exchange instruments ⁽¹⁾	\$ (5)	\$ 31	\$ 19	Interest Expense ⁽¹⁾	\$ (3)	\$ —	\$ 4
				Other Income, Net	9	2	—
Interest rate instruments	—	—	—	Gain on Sale of Assets	(10)	(9)	—
Interest rate and foreign exchange instruments	(174)	41	(34)	Equity Earnings	(5)	(7)	(20)
Foreign exchange instruments	(8)	(4)	4	Revenues: Energy- Related Businesses	(2)	1	2
Commodity contracts not subject to rate recovery	—	—	3	Revenues: Energy- Related Businesses	—	—	(9)
Total	\$ (187)	\$ 68	\$ (8)		\$ (11)	\$ (13)	\$ (23)
SDG&E							
Interest rate instruments ⁽¹⁾	\$ (1)	\$ 1	\$ (2)	Interest Expense ⁽¹⁾	\$ (3)	\$ (7)	\$ (13)
SoCalGas:							
Interest rate instruments	\$ —	\$ —	\$ —	Interest Expense	\$ (1)	\$ (1)	\$ —

⁽¹⁾ Amounts include Otay Mesa VIE. All of SDG&E's interest rate derivative activity relates to Otay Mesa VIE. On August 14, 2019, OMEC LLC paid in full its variable-rate loan and terminated its interest rate swaps.

For Sempra Energy Consolidated, we expect that net losses of \$26 million, which are net of income tax benefit, that are currently recorded in AOCI related to cash flow hedges will be reclassified into earnings during the next 12 months as the hedged items affect earnings. SoCalGas expects that \$1 million of losses, net of income tax benefit, that are currently recorded in AOCI related to cash flow hedges will be reclassified into earnings during the next 12 months as the hedged items affect earnings. Actual amounts ultimately reclassified into earnings depend on the interest rates in effect when derivative contracts mature.

For all forecasted transactions, the maximum remaining term over which we are hedging exposure to the variability of cash flows at December 31, 2019 is approximately 15 years for Sempra Energy Consolidated. The maximum remaining term for which we are hedging exposure to the variability of cash flows at our equity method investees is 20 years.

The following table summarizes the effects of derivative instruments not designated as hedging instruments on the Consolidated Statements of Operations.

UNDESIGNATED DERIVATIVE IMPACTS

(Dollars in millions)

Location	Pretax gain (loss) on derivatives recognized in earnings			
	Years ended December 31,			
	2019	2018	2017	
Sempra Energy Consolidated:				
Foreign exchange instruments	Other Income, Net	\$ 25	\$ 3	\$ 49
Commodity contracts not subject to rate recovery	Revenues: Energy-Related Businesses	12	26	16
Commodity contracts subject to rate recovery	Cost of Electric Fuel and Purchased Power	(140)	279	54
Commodity contracts subject to rate recovery	Cost of Natural Gas	3	5	(2)
Total		\$ (100)	\$ 313	\$ 117
SDG&E:				
Commodity contracts subject to rate recovery	Cost of Electric Fuel and Purchased Power	\$ (140)	\$ 279	\$ 54
SoCalGas:				
Commodity contracts subject to rate recovery	Cost of Natural Gas	\$ 3	\$ 5	\$ (2)

CONTINGENT FEATURES

For Sempra Energy Consolidated, SDG&E and SoCalGas, certain of our derivative instruments contain credit limits which vary depending on our credit ratings. Generally, these provisions, if applicable, may reduce our credit limit if a specified credit rating agency reduces our ratings. In certain cases, if our credit ratings were to fall below investment grade, the counterparty to these derivative liability instruments could request immediate payment or demand immediate and ongoing full collateralization.

For Sempra Energy Consolidated, the total fair value of this group of derivative instruments in a net liability position at December 31, 2019 and 2018 was \$21 million and \$16 million, respectively. For SoCalGas, the total fair value of this group of derivative instruments in a net liability position at December 31, 2019 and 2018 was \$4 million and \$5 million, respectively. At December 31, 2019, if the credit ratings of Sempra Energy or SoCalGas were reduced below investment grade, \$21 million and \$4 million, respectively, of additional assets could be required to be posted as collateral for these derivative contracts.

For Sempra Energy Consolidated, SDG&E and SoCalGas, some of our derivative contracts contain a provision that would permit the counterparty, in certain circumstances, to request adequate assurance of our performance under the contracts. Such additional assurance, if needed, is not material and is not included in the amounts above.

NOTE 12. FAIR VALUE MEASUREMENTS

RECURRING FAIR VALUE MEASURES

The three tables below, by level within the fair value hierarchy, set forth our financial assets and liabilities that were accounted for at fair value on a recurring basis at December 31, 2019 and 2018. We classify financial assets and liabilities in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair-valued assets and liabilities, and their placement within the fair value hierarchy.

The fair value of commodity derivative assets and liabilities is presented in accordance with our netting policy, as we discuss in Note 11 under "Financial Statement Presentation."

The determination of fair values, shown in the tables below, incorporates various factors, including but not limited to, the credit standing of the counterparties involved and the impact of credit enhancements (such as cash deposits, letters of credit and priority interests).

Our financial assets and liabilities that were accounted for at fair value on a recurring basis in the tables below include the following (other than a \$5 million and \$10 million investment at December 31, 2019 and 2018, respectively, measured at NAV):

- Nuclear decommissioning trusts reflect the assets of SDG&E's NDT, excluding cash balances. A third-party trustee values the trust assets using prices from a pricing service based on a market approach. We validate these prices by comparison to prices from other independent data sources. Securities are valued using quoted prices listed on nationally recognized securities exchanges or based on closing prices reported in the active market in which the identical security is traded (Level 1). Other securities are valued based on yields that are currently available for comparable securities of issuers with similar credit ratings (Level 2).
- For commodity contracts, interest rate derivatives and foreign exchange instruments, we primarily use a market or income approach with market participant assumptions to value these derivatives. Market participant assumptions include those about risk, and the risk inherent in the inputs to the valuation techniques. These inputs can be readily observable, market corroborated, or generally unobservable. We have exchange-traded derivatives that are valued based on quoted prices in active markets for the identical instruments (Level 1). We also may have other commodity derivatives that are valued using industry standard models that consider quoted forward prices for commodities, time value, current market and contractual prices for the underlying instruments, volatility factors, and other relevant economic measures (Level 2). Level 3 recurring items relate to CRRs and long-term, fixed-price electricity positions at SDG&E, as we discuss below in "Level 3 Information."
- Rabbi Trust investments include marketable securities that we value using a market approach based on closing prices reported in the active market in which the identical security is traded (Level 1). These investments in marketable securities were negligible at both December 31, 2019 and 2018.

RECURRING FAIR VALUE MEASURES – SEMPRA ENERGY CONSOLIDATED
(Dollars in millions)

	Fair value at December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 503	\$ 6	\$ —	\$ 509
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	46	11	—	57
Municipal bonds	—	282	—	282
Other securities	—	226	—	226
Total debt securities	46	519	—	565
Total nuclear decommissioning trusts ⁽¹⁾	549	525	—	1,074
Interest rate and foreign exchange instruments	—	24	—	24
Commodity contracts not subject to rate recovery	—	11	—	11
Effect of netting and allocation of collateral ⁽²⁾	43	—	—	43
Commodity contracts subject to rate recovery	5	8	95	108
Effect of netting and allocation of collateral ⁽²⁾	11	8	6	25
Total	\$ 608	\$ 576	\$ 101	\$ 1,285
Liabilities:				
Interest rate and foreign exchange instruments	\$ —	\$ 157	\$ —	\$ 157
Commodity contracts not subject to rate recovery	—	17	—	17
Commodity contracts subject to rate recovery	14	4	67	85
Effect of netting and allocation of collateral ⁽²⁾	(14)	—	—	(14)
Total	\$ —	\$ 178	\$ 67	\$ 245

	Fair value at December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 407	\$ 4	\$ —	\$ 411
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	43	10	—	53
Municipal bonds	—	269	—	269
Other securities	—	234	—	234
Total debt securities	43	513	—	556
Total nuclear decommissioning trusts ⁽¹⁾	450	517	—	967
Interest rate and foreign exchange instruments	—	2	—	2
Commodity contracts not subject to rate recovery	—	24	—	24
Effect of netting and allocation of collateral ⁽²⁾	19	—	—	19
Commodity contracts subject to rate recovery	2	9	278	289
Effect of netting and allocation of collateral ⁽²⁾	28	—	5	33
Total	\$ 499	\$ 552	\$ 283	\$ 1,334
Liabilities:				
Interest rate and foreign exchange instruments	\$ —	\$ 150	\$ —	\$ 150
Commodity contracts not subject to rate recovery	—	34	—	34
Commodity contracts subject to rate recovery	2	5	99	106
Effect of netting and allocation of collateral ⁽²⁾	(2)	—	—	(2)
Total	\$ —	\$ 189	\$ 99	\$ 288

⁽¹⁾ Excludes cash balances and cash equivalents.

⁽²⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

RECURRING FAIR VALUE MEASURES – SDG&E
(Dollars in millions)

	Fair value at December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 503	\$ 6	\$ —	\$ 509
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	46	11	—	57
Municipal bonds	—	282	—	282
Other securities	—	226	—	226
Total debt securities	46	519	—	565
Total nuclear decommissioning trusts ⁽¹⁾	549	525	—	1,074
Commodity contracts subject to rate recovery	1	3	95	99
Effect of netting and allocation of collateral ⁽²⁾	10	—	6	16
Total	\$ 560	\$ 528	\$ 101	\$ 1,189
Liabilities:				
Commodity contracts subject to rate recovery	14	—	67	81
Effect of netting and allocation of collateral ⁽²⁾	(14)	—	—	(14)
Total	\$ —	\$ —	\$ 67	\$ 67

	Fair value at December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 407	\$ 4	\$ —	\$ 411
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	43	10	—	53
Municipal bonds	—	269	—	269
Other securities	—	234	—	234
Total debt securities	43	513	—	556
Total nuclear decommissioning trusts ⁽¹⁾	450	517	—	967
Commodity contracts subject to rate recovery	1	6	278	285
Effect of netting and allocation of collateral ⁽²⁾	23	—	5	28
Total	\$ 474	\$ 523	\$ 283	\$ 1,280
Liabilities:				
Interest rate instruments	\$ —	\$ 1	\$ —	\$ 1
Commodity contracts subject to rate recovery	2	—	99	101
Effect of netting and allocation of collateral ⁽²⁾	(2)	—	—	(2)
Total	\$ —	\$ 1	\$ 99	\$ 100

⁽¹⁾ Excludes cash balances and cash equivalents.

⁽²⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

RECURRING FAIR VALUE MEASURES – SOCIALGAS
(Dollars in millions)

	Fair value at December 31, 2019			
	Level 1	Level 2	Level 3	Total
Assets:				
Commodity contracts subject to rate recovery	\$ 4	\$ 5	\$ —	\$ 9
Effect of netting and allocation of collateral ⁽¹⁾	1	8	—	9
Total	\$ 5	\$ 13	\$ —	\$ 18
Liabilities:				
Commodity contracts subject to rate recovery	\$ —	\$ 4	\$ —	\$ 4
Total	\$ —	\$ 4	\$ —	\$ 4

	Fair value at December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets:				
Commodity contracts subject to rate recovery	\$ 1	\$ 3	\$ —	\$ 4
Effect of netting and allocation of collateral ⁽¹⁾	5	—	—	5
Total	\$ 6	\$ 3	\$ —	\$ 9
Liabilities:				
Commodity contracts subject to rate recovery	\$ —	\$ 5	\$ —	\$ 5
Total	\$ —	\$ 5	\$ —	\$ 5

⁽¹⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

Level 3 Information

The table below sets forth reconciliations of changes in the fair value of CRRs and long-term, fixed-price electricity positions classified as Level 3 in the fair value hierarchy for Sempra Energy Consolidated and SDG&E.

LEVEL 3 RECONCILIATIONS⁽¹⁾
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Balance at January 1	\$ 179	\$ (28)	\$ (74)
Realized and unrealized gains (losses)	(184)	209	34
Allocated transmission instruments	6	10	6
Settlements	27	(12)	6
Balance at December 31	\$ 28	\$ 179	\$ (28)
Change in unrealized gains (losses) relating to instruments still held at December 31	\$ (139)	\$ 183	\$ 30

⁽¹⁾ Excludes the effect of the contractual ability to settle contracts under master netting agreements.

Inputs used to determine the fair value of CRRs and fixed-price electricity positions are reviewed and compared with market conditions to determine reasonableness. SDG&E expects all costs related to these instruments to be recoverable through customer rates. As such, there is no impact to earnings from changes in the fair value of these instruments.

CRRs are recorded at fair value based almost entirely on the most current auction prices published by the California ISO, an objective source. Annual auction prices are published once a year, typically in the middle of November, and are the basis for valuing CRRs settling in the following year. For the CRRs settling from January 1 to December 31, the auction price inputs, at a given location, were in the following ranges for the years indicated below:

CONGESTION REVENUE RIGHTS AUCTION PRICE INPUTS

Settlement year	Price per MWh				Median price per MWh
2020	\$	(3.77)	to	\$	6.03 \$ (1.58)
2019		(8.57)	to		35.21 (2.94)
2018		(7.25)	to		11.99 0.09

The impact associated with discounting is negligible. Because these auction prices are a less observable input, these instruments are classified as Level 3. The fair value of these instruments is derived from auction price differences between two locations. Positive values between two locations represent expected future reductions in congestion costs, whereas negative values between two locations represent expected future charges. Valuation of our CRRs is sensitive to a change in auction price. If auction prices at one location increase (decrease) relative to another location, this could result in a higher (lower) fair value measurement. We summarize CRR volumes in Note 11.

Long-term, fixed-price electricity positions that are valued using significant unobservable data are classified as Level 3 because the contract terms relate to a delivery location or tenor for which observable market rate information is not available. The fair value of the net electricity positions classified as Level 3 is derived from a discounted cash flow model using market electricity forward price inputs. The range and weighted-average price of these inputs were as follows:

LONG-TERM, FIXED-PRICE ELECTRICITY POSITIONS PRICE INPUTS

Settlement year	Price per MWh				Weighted-average price per MWh
2019	\$	21.00	to	\$	61.15 \$ 37.92
2018		22.20	to		76.85 42.69

A significant increase or decrease in market electricity forward prices would result in a significantly higher or lower fair value, respectively. We summarize long-term, fixed-price electricity position volumes in Note 11.

Realized gains and losses associated with CRRs and long-term electricity positions, which are recoverable in rates, are recorded in Cost of Electric Fuel and Purchased Power on the Consolidated Statements of Operations. Because unrealized gains and losses are recorded as regulatory assets and liabilities, they do not affect earnings.

Fair Value of Financial Instruments

The fair values of certain of our financial instruments (cash, accounts and notes receivable, short-term amounts due to/from unconsolidated affiliates, dividends and accounts payable, short-term debt and customer deposits) approximate their carrying amounts because of the short-term nature of these instruments. Investments in life insurance contracts that we hold in support of our Supplemental Executive Retirement, Cash Balance Restoration and Deferred Compensation Plans are carried at cash surrender values, which represent the amount of cash that could be realized under the contracts. The following table provides the carrying amounts and fair values of certain other financial instruments that are not recorded at fair value on the Consolidated Balance Sheets.

FAIR VALUE OF FINANCIAL INSTRUMENTS

(Dollars in millions)

	December 31, 2019				
	Carrying amount	Fair value			Total
		Level 1	Level 2	Level 3	
Sempra Energy Consolidated:					
Long-term amounts due from unconsolidated affiliates	\$ 742	\$ —	\$ 759	\$ —	\$ 759
Long-term amounts due to unconsolidated affiliates	195	—	184	—	184
Total long-term debt ⁽¹⁾	21,247	—	22,638	26	22,664
SDG&E:					
Total long-term debt ⁽²⁾	\$ 5,140	\$ —	\$ 5,662	\$ —	\$ 5,662
SoCalGas:					
Total long-term debt ⁽³⁾	\$ 3,809	\$ —	\$ 4,189	\$ —	\$ 4,189

	December 31, 2018				
	Carrying amount	Fair value			Total
		Level 1	Level 2	Level 3	
Sempra Energy Consolidated:					
Long-term amounts due from unconsolidated affiliates	\$ 644	\$ —	\$ 648	\$ 4	\$ 652
Long-term amounts due to unconsolidated affiliates	37	—	35	—	35
Total long-term debt ⁽⁴⁾⁽⁵⁾	21,340	—	20,616	247	20,863
SDG&E:					
Total long-term debt ⁽⁴⁾⁽⁶⁾	\$ 4,996	\$ —	\$ 4,897	\$ 220	\$ 5,117
SoCalGas:					
Total long-term debt ⁽⁷⁾	\$ 3,459	\$ —	\$ 3,505	\$ —	\$ 3,505

⁽¹⁾ Before reductions of unamortized discount and debt issuance costs of \$225 million and excluding finance lease obligations of \$1,289 million.

⁽²⁾ Before reductions of unamortized discount and debt issuance costs of \$48 million and excluding finance lease obligations of \$1,270 million.

⁽³⁾ Before reductions of unamortized discount and debt issuance costs of \$34 million and excluding finance lease obligations of \$19 million.

⁽⁴⁾ Level 3 instruments include \$220 million related to Otay Mesa VIE.

⁽⁵⁾ Before reductions of unamortized discount and debt issuance costs of \$206 million and excluding build-to-suit arrangement and capital lease obligations of \$1,413 million.

⁽⁶⁾ Before reductions of unamortized discount and debt issuance costs of \$49 million and excluding capital lease obligations of \$1,272 million.

⁽⁷⁾ Before reductions of unamortized discount and debt issuance costs of \$32 million and excluding capital lease obligations of \$3 million.

We provide the fair values for the securities held in the NDT related to SONGS in Note 15.

NON-RECURRING FAIR VALUE MEASURES

Sempra Mexico

TdM

In 2017, while TdM was held for sale, Sempra Mexico received a purchase price offer for TdM resulting from negotiations with an active market participant. This new market information indicated that the fair value of TdM was lower than its carrying value at June 30, 2017. As a result, in the second quarter of 2017, Sempra Mexico further reduced the carrying value of TdM by recognizing a noncash impairment charge of \$71 million in Impairment Losses on Sempra Energy's Consolidated Statements of Operations. A purchase price offer is considered to be a Level 2 input in the fair value hierarchy, as it represents an observable pricing input. TdM was reclassified to held and used in June 2018 when management terminated the sales process.

Sempra Renewables

U.S. Wind Investments

As we discuss in Notes 5 and 6, in June 2018, our board of directors approved a plan to sell all our wind and solar equity method investments at Sempra Renewables. Because of our expectation of a shorter holding period as a result of this plan of sale, we evaluated the recoverability of the carrying amounts of each of these investments and concluded there was an other-than-temporary impairment on certain of our wind equity method investments totaling \$200 million (\$145 million after tax), which we

recorded in Equity Earnings on Sempra Energy's Consolidated Statement of Operations for the year ended December 31, 2018. We measured the estimated fair value of \$145 million at June 25, 2018 using a discounted cash flow model including significant unobservable inputs, adjusted for our applicable ownership percentages, which is a Level 3 measurement in the fair value hierarchy. The key inputs to the methodology were contracted and merchant pricing, and the discount rate. Sempra Renewables completed the sale of its interests in these wind equity method investments in April 2019.

Sempra LNG

Non-Utility Natural Gas Storage Assets

As we discuss in Note 5, in June 2018, our board of directors approved a plan to sell Mississippi Hub, our 90.9% ownership interest in Bay Gas and other non-utility assets (the non-utility natural gas storage assets). We also own a 75.4% interest in LA Storage, a salt cavern development project in Cameron Parish, Louisiana. The LA Storage project also includes an existing 23.3-mile pipeline header system that is not currently contracted.

Because of the plan of sale, we considered a market participant's view of the total value of the non-utility natural gas storage assets and determined that their fair value, less costs to sell, may be less than their carrying value. Additionally, our inability to secure customer contracts that would support further investment in LA Storage led us to assess and conclude that the full carrying value of these other U.S. midstream assets may not be recoverable. As a result, on June 25, 2018, we recorded an impairment of \$1.3 billion (\$755 million after tax and NCI) in Impairment Losses on Sempra Energy's Consolidated Statement of Operations.

We measured the estimated fair value of \$190 million at June 25, 2018 using a discounted cash flow approach. This approach included unobservable inputs, resulting in a Level 3 measurement in the fair value hierarchy. We considered a market participant's view of the values of the non-utility natural gas storage assets based on an estimation of future net cash flows. To estimate future net cash flows, we considered the non-utility natural gas storage assets' prospects for generating revenues and cash flows beyond their existing contracted capacity and tenors, including natural gas price volatility and seasonality factors, as well as discount rates commensurate with the risks inherent in the cash flows.

On January 1, 2019, Sempra LNG entered into an agreement to sell Mississippi Hub and Bay Gas to an affiliate of ArcLight Capital Partners for \$332 million, subject to working capital adjustments and \$20 million representing Sempra LNG's purchase of the 9.1% minority interest in Bay Gas immediately prior to and included as part of the sale. On February 7, 2019, Sempra LNG completed this sale. Additionally, in December 2018, Sempra LNG entered into an agreement to sell other non-utility assets for \$5 million; such sale was completed in January 2019. We considered the assets' sales prices negotiated with active market participants to be a relevant and material data input. Accordingly, we updated our fair value analysis to reflect the Level 2 market participant input as the primary indicator of fair value. As a result, on December 31, 2018, we reduced the impairment of \$1.3 billion recorded on June 25, 2018 by \$183 million (\$126 million after tax and NCI), resulting in a total impairment of \$1.1 billion (\$629 million after tax and NCI) for the year ended December 31, 2018, based on a fair value of \$337 million for these non-utility natural gas storage assets.

The table below summarizes significant inputs impacting our non-recurring fair value measures. Additional discussions about the related transactions are provided in Note 5, and as applicable, in Note 6.

NON-RECURRING FAIR VALUE MEASURES – SEMPRA ENERGY CONSOLIDATED

	Measurement date	Estimated fair value (in millions)	Valuation technique	Fair value hierarchy	% of fair value measurement	Inputs used to develop measurement	Range of inputs (weighted average)
Non-utility natural gas storage assets	December 31, 2018	\$ 337	Market approach	Level 2	100%	Assets' sales prices	100%
Non-utility natural gas storage assets	June 25, 2018	\$ 190	Discounted cash flows	Level 3	100%	Storage rates per Dth/month	\$0.06 - \$0.22 (\$0.10) ⁽¹⁾
						Discount rate	10% ⁽²⁾
Certain of our U.S. wind equity method investments	June 25, 2018	\$ 145	Discounted cash flows	Level 3	100%	Contracted and observable merchant prices per MWh	\$29 - \$92 ⁽¹⁾
						Discount rate	8% - 10% (8.7%) ⁽²⁾
TdM	June 30, 2017	\$ 62	Market approach	Level 2	100%	Purchase price offer	100%

⁽¹⁾ Generally, significant increases (decreases) in this input in isolation would result in a significantly higher (lower) fair value measurement.

⁽²⁾ An increase in the discount rate would result in a decrease in fair value.

NOTE 13. PREFERRED STOCK

Sempra Energy and SDG&E are authorized to issue up to 50 million and 45 million shares of preferred stock, respectively. At December 31, 2019 and 2018, SDG&E had no preferred stock outstanding. The rights, preferences, privileges and restrictions for any new series of preferred stock would be established by each company's board of directors at the time of issuance.

SEMPRA ENERGY MANDATORY CONVERTIBLE PREFERRED STOCK

In January 2018, we issued 17,250,000 shares of our 6% mandatory convertible preferred stock, series A (series A preferred stock) in a registered public offering at \$100.00 per share (or \$98.20 per share after deducting underwriting discounts), including 2,250,000 shares purchased by the underwriters from us as a result of fully exercising their option to purchase such shares from us solely to cover overallocments. Each share of series A preferred stock has a liquidation value of \$100.00. We used the net proceeds of approximately \$1.69 billion (net of underwriting discounts and equity issuance costs of \$32 million) to fund a portion of the Merger Consideration, as we discuss in Note 5.

In July 2018, we issued 5,750,000 shares of our 6.75% mandatory convertible preferred stock, series B (series B preferred stock) in a registered public offering at \$100.00 per share (or \$98.35 per share after deducting underwriting discounts), including 750,000 shares purchased by the underwriters from us as a result of fully exercising their option to purchase such shares from us solely to cover overallocments. Each share of series B preferred stock has a liquidation value of \$100.00. We used the net proceeds of approximately \$565 million (net of underwriting discounts and equity issuance costs of \$10 million) to repay commercial paper, to fund working capital and for other general corporate purposes.

Mandatory Conversion

Unless earlier converted, each share of the series A preferred stock and series B preferred stock will automatically convert on the mandatory conversion date of January 15, 2021 and July 15, 2021, respectively. The number of shares of our common stock issuable on conversion of each series of preferred stock will be determined based on the volume-weighted average market value per share of our common stock over the 20-consecutive trading day period beginning on and including the 21st scheduled trading day immediately preceding January 15, 2021 for the series A preferred stock and July 15, 2021 for the series B preferred stock. The following table illustrates the conversion rate per share of each series of preferred stock, subject to certain anti-dilution adjustments.

CONVERSION RATES

Applicable market value per share of our common stock	Conversion rate (number of shares of our common stock to be received upon conversion of each share of mandatory convertible preferred stock)
Series A preferred stock	
Greater than \$131.075 (which is the threshold appreciation price)	0.7629 shares (approximately equal to \$100.00 divided by the threshold appreciation price)
Equal to or less than \$131.075 but greater than or equal to \$107.00	Between 0.7629 and 0.9345 shares, determined by dividing \$100.00 by the applicable market value of our common stock
Less than \$107.00 (which is the initial price)	0.9345 shares (approximately equal to \$100.00 divided by the initial price)
Series B preferred stock	
Greater than \$136.50 (which is the threshold appreciation price)	0.7326 shares (approximately equal to \$100.00 divided by the threshold appreciation price)
Equal to or less than \$136.50 but greater than or equal to \$113.75	Between 0.7326 and 0.8791 shares, determined by dividing \$100.00 by the applicable market value of our common stock
Less than \$113.75 (which is the initial price)	0.8791 shares (approximately equal to \$100.00 divided by the initial price)

Conversion at the Option of the Holder

Generally, and subject to the terms of the respective series of preferred stock, at any time prior to January 15, 2021 for the series A preferred stock and July 15, 2021 for the series B preferred stock, holders may elect to convert each share of their preferred stock into shares of our common stock at the minimum conversion rate, which could result in an aggregate of approximately 13.2 million common shares with respect to conversion of series A preferred stock and 4.2 million common shares with respect to conversion of series B preferred stock, if all outstanding preferred stock under each series were converted early, subject to anti-dilution adjustments. Further, if holders elect to convert any shares of either series of preferred stock during a specified period beginning on the effective date of a fundamental change, as defined in the certificate of determination of preferences of the respective series of preferred stock, such shares of preferred stock will be converted into shares of our common stock at a fundamental change conversion rate, and the holders will also be entitled to receive a fundamental change dividend make-whole amount and accumulated dividend amount.

Dividends

Dividends on each series of preferred stock are payable quarterly on a cumulative basis when, as and if declared by our board of directors. The first quarterly dividend for the series A preferred stock and series B preferred stock was paid on April 15, 2018 and October 15, 2018, respectively. We may pay quarterly declared dividends in cash or, subject to certain limitations, in shares of our common stock, no par value, or in any combination of cash and shares of our common stock. Shares of common stock used to pay dividends will be valued at 97% of the volume-weighted average price per share over the five-consecutive trading day period beginning on, and including the sixth trading day prior to, the applicable dividend payment date. The holders of each series of preferred stock do not have voting rights with respect to their preferred stock. However, under certain circumstances including nonpayment of dividends for six or more dividend periods, whether or not consecutive, the authorized number of directors on our board of directors will automatically be increased by two and the holders of each series of preferred stock, voting together as a single class with holders of any and all other outstanding preferred stock of equal rank having similar voting rights, will be entitled to elect two directors to fill such newly created directorships. This right shall terminate when all accumulated dividends have been paid in full and the authorized number of directors shall automatically decrease by two, subject to the re-vesting of that right in the event of each subsequent nonpayment.

Ranking

Each series of preferred stock will rank with respect to dividend rights and distribution rights upon our liquidation, winding-up or dissolution:

- senior to our common stock, including our capital stock established in the future, unless the terms of such capital stock expressly provide otherwise;
- on parity with each series of preferred stock, including our capital stock established in the future, unless the terms of such capital stock expressly provide otherwise;
- junior to our capital stock established in the future, if the terms provide that such class of series of new capital stock will rank senior to the series A preferred stock and series B preferred stock;
- junior to our existing and future indebtedness and other liabilities; and
- structurally subordinated to any existing and future indebtedness and other liabilities of our subsidiaries and capital stock of our subsidiaries held by third parties.

SOCALGAS PREFERRED STOCK

SoCalGas is authorized to issue up to an aggregate of 11 million shares of preferred stock, series preferred stock and preference stock. The table below presents preferred stock outstanding at SoCalGas:

PREFERRED STOCK OUTSTANDING

(Dollars in millions, except per share amounts)

	December 31,	
	2019	2018
\$25 par value, authorized 1,000,000 shares:		
6% Series, 79,011 shares outstanding	\$ 3	\$ 3
6% Series A, 783,032 shares outstanding	19	19
SoCalGas - Total preferred stock	22	22
Less: 50,970 shares of the 6% Series outstanding owned by Pacific Enterprises	(2)	(2)
Sempra Energy - Total preferred stock of subsidiary	\$ 20	\$ 20

None of SoCalGas' outstanding preferred stock is callable, and no shares are subject to mandatory redemption.

All outstanding shares have one vote per share, cumulative preferences as to dividends and liquidation preferences of \$25 per share plus any unpaid dividends.

In addition to the outstanding preferred stock above, SoCalGas' articles of incorporation authorize 5 million shares of series preferred stock and 5 million shares of preference stock, both without par value and with cumulative preferences as to dividends and liquidation value. The preference stock would rank junior to all series of preferred stock and series preferred stock. Other rights and privileges of any new series of such stock would be established by the SoCalGas board of directors at the time of issuance.

NOTE 14. SEMPRA ENERGY – SHAREHOLDERS' EQUITY AND EARNINGS PER COMMON SHARE

SEMPRA ENERGY COMMON STOCK OFFERINGS

In January 2018, we completed the offering of 26,869,158 shares of our common stock, no par value, in a registered public offering at \$107.00 per share (approximately \$105.07 per share after deducting underwriting discounts), with 23,364,486 shares pursuant to forward sale agreements. We received net proceeds totaling approximately \$2.8 billion to fully settle these shares, as follows:

- \$367 million (net of underwriting discounts and equity issuance costs of \$8 million) to cover over-allotment shares of 3,504,672 in the first quarter of 2018 at a settlement price of \$105.07 per share;
- \$900 million (net of underwriting discounts of \$16 million) from the settlement of 8,556,630 shares in the first quarter of 2018 at a forward sale price of \$105.18 per share;
- \$800 million (net of underwriting discounts of \$14 million) from the settlement of 7,651,671 shares in the second quarter of 2018 at forward sale prices ranging from \$104.53 to \$104.58 per share; and
- \$728 million (net of underwriting discounts of \$13 million) from the settlement of 7,156,185 shares in the third quarter of 2019 at a forward sale price of \$101.74 per share.

In July 2018, we completed the offering of 11,212,500 shares of our common stock, no par value, in a registered public offering at \$113.75 per share (approximately \$111.87 per share after deducting underwriting discounts), with 9,750,000 shares pursuant to forward sale agreements. We received net proceeds totaling approximately \$1.2 billion to fully settle these shares, as follows:

- \$164 million (net of underwriting discounts and equity issuance costs of \$3 million) to cover over-allotment shares of 1,462,500 in the third quarter of 2018 at a settlement price of \$111.87 per share; and
- \$1,066 million (net of underwriting discounts of \$18 million) from the settlement of 9,750,000 shares in the fourth quarter of 2019 at a forward sale price of \$109.33 per share.

EARNINGS PER COMMON SHARE

Basic EPS is calculated by dividing earnings attributable to common shares (from both continuing and discontinued operations) by the weighted-average number of common shares outstanding for the period. Diluted EPS includes the potential dilution of common stock equivalent shares that could occur if securities or other contracts to issue common stock were exercised or converted into common stock.

EARNINGS (LOSSES) PER COMMON SHARE COMPUTATIONS

(Dollars in millions, except per share amounts; shares in thousands)

	Years ended December 31,		
	2019	2018	2017
Numerator for continuing operations:			
Income from continuing operations, net of income tax	\$ 1,999	\$ 938	\$ 382
Earnings attributable to noncontrolling interests	(129)	(44)	(67)
Mandatory convertible preferred stock dividends	(142)	(125)	—
Preferred dividends of subsidiary	(1)	(1)	(1)
Earnings from continuing operations attributable to common shares	\$ 1,727	\$ 768	\$ 314
Numerator for discontinued operations:			
Income (loss) from discontinued operations, net of income tax	\$ 363	\$ 188	\$ (31)
Earnings attributable to noncontrolling interests	(35)	(32)	(27)
Earnings (losses) from discontinued operations attributable to common shares	\$ 328	\$ 156	\$ (58)
Numerator for earnings:			
Earnings attributable to common shares	\$ 2,055	\$ 924	\$ 256
Denominator:			
Weighted-average common shares outstanding for basic EPS ⁽¹⁾	277,904	268,072	251,545
Dilutive effect of stock options and RSUs ⁽²⁾	1,585	919	755
Dilutive effect of common shares sold forward	2,544	861	—
Weighted-average common shares outstanding for diluted EPS	282,033	269,852	252,300
Basic EPS:			
Earnings from continuing operations	\$ 6.22	\$ 2.86	\$ 1.25
Earnings (losses) from discontinued operations	\$ 1.18	\$ 0.59	\$ (0.23)
Earnings	\$ 7.40	\$ 3.45	\$ 1.02
Diluted EPS:			
Earnings from continuing operations	\$ 6.13	\$ 2.84	\$ 1.24
Earnings (losses) from discontinued operations	\$ 1.16	\$ 0.58	\$ (0.23)
Earnings	\$ 7.29	\$ 3.42	\$ 1.01

⁽¹⁾ Includes fully vested RSUs held in our Deferred Compensation Plan of 617 in 2019, 641 in 2018 and 609 in 2017. These fully vested RSUs are included in weighted-average common shares outstanding for basic EPS because there are no conditions under which the corresponding shares will not be issued.

⁽²⁾ Due to market fluctuations of both Sempra Energy common stock and the comparative indices used to determine the vesting percentage of our total shareholder return performance-based RSUs, which we discuss in Note 10, dilutive RSUs may vary widely from period-to-period.

The potentially dilutive impact from stock options and RSUs is calculated under the treasury stock method. Under this method, proceeds based on the exercise price and unearned compensation are assumed to be used to repurchase shares on the open market at the average market price for the period, reducing the number of potential new shares to be issued and sometimes causing an antidilutive effect. The computation of diluted EPS excludes potentially dilutive shares of 80,281 for 2019, 20,814 for 2018 and 237,741 for 2017 because to include them would be antidilutive for the period. However, these shares could potentially dilute basic EPS in the future.

The potentially dilutive impact from the forward sale of our common stock pursuant to the forward sale agreements that we discuss above is reflected in our diluted EPS calculation using the treasury stock method. As of December 31, 2019, we have fully

settled all forward sale agreements and those shares are included in weighted-average shares common shares outstanding for basic EPS.

The potentially dilutive impact from mandatory convertible preferred stock that we issued in 2018 is calculated under the if-converted method. The computation of diluted EPS for the years ended December 31, 2019 and 2018 excludes 17,471,375 and 17,197,035 potentially dilutive shares, respectively, because to include them would be antidilutive for those periods. However, these shares could potentially dilute basic EPS in the future. We discuss the 2018 issuances of our mandatory convertible preferred stock in Note 13.

We are authorized to issue 750 million shares of no par value common stock. The following table provides common stock activity for the last three years.

COMMON STOCK ACTIVITY

	Years ended December 31,		
	2019	2018	2017
Common shares outstanding, January 1	273,769,513	251,358,977	250,152,514
Shares issued under forward sale agreements	16,906,185	21,175,473	—
RSUs vesting ⁽¹⁾	463,012	509,042	362,022
Stock options exercised	52,540	138,861	164,454
Savings plan issuance	475,774	553,036	567,428
Common stock investment plan ⁽²⁾	199,253	231,242	254,047
Issuance of RSUs held in our Deferred Compensation Plan	59,470	3,357	7,811
Shares repurchased ⁽³⁾	(212,822)	(200,475)	(149,299)
Common shares outstanding, December 31	291,712,925	273,769,513	251,358,977

⁽¹⁾ Includes dividend equivalents.

⁽²⁾ Participants in the Direct Stock Purchase Plan may reinvest dividends to purchase newly issued shares.

⁽³⁾ Generally, we purchase shares of our common stock or units from LTIP participants who elect to sell to us a sufficient number of vested RSUs to meet minimum statutory tax withholding requirements.

NOTE 15. SAN ONOFRE NUCLEAR GENERATING STATION

SDG&E has a 20% ownership interest in SONGS, a nuclear generating facility near San Clemente, California, which permanently ceased operations in June 2013 after an extended outage as a result of issues with the steam generators used in the facility. Edison, the majority owner and operator of SONGS, notified SDG&E that it had reached a decision to permanently retire SONGS and seek approval from the NRC to start the decommissioning activities for the entire facility. SONGS is subject to the jurisdiction of the NRC and the CPUC.

SDG&E, and each of the other owners, holds its undivided interest as a tenant in common in the property. Each owner is responsible for financing its share of costs. SDG&E's share of operating expenses is included in Sempra Energy's and SDG&E's Consolidated Statements of Operations.

SONGS STEAM GENERATOR REPLACEMENT PROJECT

The replacement steam generators, which caused a water leak due to unexpected tube wear, were designed and provided by MHI. In 2013, Edison instituted arbitration proceedings against MHI seeking recovery of damages resulting from the issues with the steam generators used in SONGS Units 2 and 3. The other SONGS co-owners, SDG&E and the City of Riverside, participated as claimants and respondents.

In March 2017, the International Chamber of Commerce International Court of Arbitration Tribunal (the Tribunal) overseeing the arbitration found MHI liable for breach of contract, subject to a contractual limitation of liability, and rejected claimants' other claims. The Tribunal awarded \$118 million in damages to the SONGS co-owners, but determined that MHI was the prevailing party and awarded it 95% of its arbitration costs. The damage award is offset by these costs, resulting in a net award of approximately \$60 million in favor of the SONGS co-owners. SDG&E's specific allocation of the damage award was \$24 million reduced by costs awarded to MHI of approximately \$12 million, resulting in a net damage award of \$12 million, which was paid by MHI to SDG&E in March 2017. In accordance with the Amended Settlement Agreement discussed below, SDG&E recorded

the proceeds from the MHI arbitration by reducing O&M for previously incurred legal costs of \$11 million, and shared the remaining \$1 million equally between ratepayers and shareholders.

SETTLEMENT AGREEMENT TO RESOLVE THE CPUC'S ORDER INSTITUTING INVESTIGATION INTO THE SONGS OUTAGE

In 2012, in response to the SONGS outage, the CPUC issued the SONGS OII, which was intended to determine the ultimate recovery of the investment in SONGS and the costs incurred since the commencement of the outage.

In 2014, the CPUC issued a final decision approving an Amended Settlement Agreement that provided for various disallowances, refunds and rate recoveries, including authorizing SDG&E to recover in rates its remaining investment in SONGS, excluding its investment in the Steam Generator Replacement Project.

In 2016, the CPUC issued two procedural rulings: the first, to reopen the record of the OII to address the issue of whether the Amended Settlement Agreement is reasonable and in the public interest, and the second, directing parties to the SONGS OII to determine whether an agreement could be reached to modify the Amended Settlement Agreement previously approved by the CPUC, to resolve allegations that unreported *ex parte* communications between Edison and the CPUC resulted in an unfair advantage at the time the settlement agreement was negotiated.

In July 2018, the CPUC approved a Revised Settlement Agreement among SDG&E, Edison, Cal PA, TURN and other intervenors that resolved all issues under consideration in the SONGS OII and made one modification to the Amended Settlement Agreement to remove the requirement to fund a GHG emissions reduction research program. In August 2018, parties to the Revised Settlement Agreement submitted a notice that they accepted the settlement agreement, as modified.

In connection with the Revised Settlement Agreement, and in exchange for the release of certain SONGS-related claims, SDG&E and Edison entered into the Utility Shareholder Agreement, described below.

Disallowances, Refunds and Recoveries

Under the Revised Settlement Agreement, SDG&E and Edison ceased rate recovery of SONGS costs as authorized under the Amended Settlement Agreement as of December 19, 2017, when the present value of their combined remaining SONGS regulatory assets equaled \$775 million, of which \$152 million represents SDG&E's share. Under the Utility Shareholder Agreement, Edison is obligated to pay SDG&E the full amount of SDG&E's revenue requirement not recovered from ratepayers, as described below. In October 2018, SDG&E began refunding to customers SONGS-related amounts recovered in rates after December 19, 2017.

Utility Shareholder Agreement

In January 2018, SDG&E and Edison entered into the Utility Shareholder Agreement under which Edison has an obligation to compensate SDG&E for the revenue requirement amounts that SDG&E will no longer recover because of the Revised Settlement Agreement. In exchange for Edison's reimbursement, the parties mutually released each other from all claims that each party had or could have asserted related to the steam generator replacement failure and its aftermath. The Utility Shareholder Agreement became effective upon CPUC approval of the Revised Settlement Agreement. Edison's payment obligation commenced in October 2018, and amounts are due to SDG&E quarterly thereafter until April 2022. At December 31, 2019, SDG&E has a receivable from Edison, including accrued interest, totaling \$86 million, with \$38 million classified as current and \$48 million classified as noncurrent. This receivable reflects amounts Edison is obligated to pay to SDG&E in lieu of amounts SDG&E would have collected from ratepayers associated with the SONGS regulatory asset.

NUCLEAR DECOMMISSIONING AND FUNDING

As a result of Edison's decision to permanently retire SONGS Units 2 and 3, Edison began the decommissioning phase of the plant. We expect the majority of the dismantlement work to take 10 years after receipt of the required permits. The coastal development permit was issued in October 2019. The Samuel Lawrence Foundation filed a writ petition under the California Coastal Act in LA Superior Court in December 2019. The petition seeks to invalidate the permit and to obtain injunctive relief to stop decommissioning work. We expect major decommissioning work to begin in 2020, unless the court issues an injunction. Decommissioning of Unit 1, removed from service in 1992, is largely complete. The remaining work for Unit 1 will be completed once Units 2 and 3 are dismantled and the spent fuel is removed from the site. The spent fuel is currently being stored on-site, until the DOE identifies a spent fuel storage facility and puts in place a program for the fuel's disposal, as we discuss below. SDG&E is responsible for approximately 20% of the total contract price.

In accordance with state and federal requirements and regulations, SDG&E has assets held in the NDT to fund its share of decommissioning costs for SONGS Units 1, 2 and 3. The amounts collected in rates for SONGS' decommissioning are invested in the NDT, which is comprised of externally managed trust funds. Amounts held by the NDT are invested in accordance with CPUC regulations. SDG&E classifies debt and equity securities held in the NDT as available-for-sale. The NDT assets are presented on the Sempra Energy and SDG&E Consolidated Balance Sheets at fair value with the offsetting credits recorded in noncurrent Regulatory Liabilities.

Except for the use of funds for the planning of decommissioning activities or NDT administrative costs, CPUC approval is required for SDG&E to access the NDT assets to fund SONGS decommissioning costs for Units 2 and 3. SDG&E has received authorization from the CPUC to access NDT funds of up to \$455 million for 2013 through 2019 SONGS decommissioning costs. SDG&E has filed for authorization with the CPUC to withdraw up to \$109 million from the NDT for forecasted 2020 SONGS Units 2 and 3 costs as decommissioning costs are incurred.

In December 2016, the IRS and the U.S. Department of the Treasury issued proposed regulations that clarify the definition of "nuclear decommissioning costs," which are costs that may be paid for or reimbursed from a qualified trust fund. The proposed regulations state that costs related to the construction and maintenance of independent spent fuel management installations are included in the definition of "nuclear decommissioning costs." The proposed regulations will be effective prospectively once they are finalized. SDG&E is awaiting the adoption of, or additional refinement to, the proposed regulations before determining whether the proposed regulations will allow SDG&E to timely access the NDT funds for reimbursement or payment of the spent fuel management costs incurred in 2017 and subsequent years. Further clarification of the proposed regulations could enable SDG&E to access the NDT to recover spent fuel management costs before Edison reaches final settlement with the DOE regarding the DOE's reimbursement of these costs. Historically, the DOE's reimbursements of spent fuel storage costs have not resulted in timely or complete recovery of these costs. We discuss the DOE's responsibility for spent nuclear fuel below. The IRS held public hearings on the proposed regulations in October 2017. It is unclear when clarification of the proposed regulations might be provided or when the proposed regulations will be finalized.

Nuclear Decommissioning Trusts

The amounts collected in rates for SONGS' decommissioning are invested in the NDT, which is comprised of externally managed trust funds. Amounts held by the trusts are invested in accordance with CPUC regulations. These trusts are shown on the Sempra Energy and SDG&E Consolidated Balance Sheets at fair value with the offsetting credits recorded in noncurrent Regulatory Liabilities.

The following table shows the fair values and gross unrealized gains and losses for the securities held in the NDT. We provide additional fair value disclosures for the NDT in Note 12.

NUCLEAR DECOMMISSIONING TRUSTS

(Dollars in millions)

	Cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
At December 31, 2019:				
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies ⁽¹⁾	\$ 57	\$ —	\$ —	\$ 57
Municipal bonds ⁽²⁾	270	12	—	282
Other securities ⁽³⁾	218	9	(1)	226
Total debt securities	545	21	(1)	565
Equity securities	176	339	(6)	509
Cash and cash equivalents	8	—	—	8
Total	\$ 729	\$ 360	\$ (7)	\$ 1,082
At December 31, 2018:				
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	\$ 52	\$ 1	\$ —	\$ 53
Municipal bonds	266	4	(1)	269
Other securities	238	1	(5)	234
Total debt securities	556	6	(6)	556
Equity securities	168	253	(10)	411
Cash and cash equivalents	7	—	—	7
Total	\$ 731	\$ 259	\$ (16)	\$ 974

⁽¹⁾ Maturity dates are 2021-2050.

⁽²⁾ Maturity dates are 2020-2056.

⁽³⁾ Maturity dates are 2020-2072.

The following table shows the proceeds from sales of securities in the NDT and gross realized gains and losses on those sales.

SALES OF SECURITIES IN THE NDT

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Proceeds from sales	\$ 914	\$ 890	\$ 1,314
Gross realized gains	24	42	157
Gross realized losses	(5)	(10)	(14)

Net unrealized gains and losses, as well as realized gains and losses that are reinvested in the NDT, are included in noncurrent Regulatory Liabilities on Sempra Energy's and SDG&E's Consolidated Balance Sheets. We determine the cost of securities in the trusts on the basis of specific identification.

ASSET RETIREMENT OBLIGATION AND SPENT NUCLEAR FUEL

The present value of SDG&E's ARO related to decommissioning costs for the SONGS units was \$611 million at December 31, 2019. That amount includes the cost to decommission Units 2 and 3, and the remaining cost to complete the decommissioning of Unit 1, which is substantially complete. The ARO for all three units is based on a cost study prepared in 2017 that is pending CPUC approval. The ARO for Units 2 and 3 reflects the acceleration of the start of decommissioning of these units as a result of the early closure of the plant. SDG&E's share of total decommissioning costs in 2019 dollars is approximately \$834 million. We expect SDG&E's undiscounted SONGS decommissioning payments to be \$89 million in 2020, \$82 million in 2021, \$83 million in 2022, \$63 million in 2023, \$46 million in 2024, and \$739 million thereafter.

U.S. DEPARTMENT OF ENERGY NUCLEAR FUEL DISPOSAL

Spent nuclear fuel from SONGS is currently stored on-site in an ISFSI licensed by the NRC or temporarily in spent fuel pools. In October 2015, the CCC approved Edison's application for the proposed expansion of the ISFSI at SONGS. The ISFSI expansion began construction in 2016 and the transfer of the spent nuclear fuel from Units 2 and 3 to the ISFSI began in 2018. Edison suspended this transfer in August 2018 due to an incident that was subsequently resolved to the NRC's satisfaction according to the NRC's supplemental inspection report released in July 2019. Edison resumed spent fuel transfer operations in July 2019. The ISFSI will operate until 2049, when it is assumed that the DOE will have taken custody of all the SONGS spent fuel. The ISFSI would then be decommissioned, and the site restored to its original environmental state. Until then, SONGS owners are responsible for interim storage of spent nuclear fuel at SONGS.

The Nuclear Waste Policy Act of 1982 made the DOE responsible for accepting, transporting, and disposing of spent nuclear fuel. However, it is uncertain when the DOE will begin accepting spent nuclear fuel from SONGS. This delay will lead to increased costs for spent fuel storage. In November 2019, Edison filed a claim for spent fuel management costs in the U.S. Court of Federal Claims for the time period from January 2017 through July 2018. It is unclear when Edison will pursue litigation claims for spent fuel management costs incurred on or after August 1, 2018. SDG&E will continue to support Edison in its pursuit of claims on behalf of the SONGS co-owners against the DOE for its failure to timely accept the spent nuclear fuel.

NUCLEAR INSURANCE

SDG&E and the other owners of SONGS have insurance to cover claims from nuclear liability incidents arising at SONGS. Currently, this insurance provides \$450 million in coverage limits, the maximum amount available, including coverage for acts of terrorism. In addition, the Price-Anderson Act provides an additional \$110 million of coverage. If a nuclear liability loss occurs at SONGS and exceeds the \$450 million insurance limit, this additional coverage would be available to provide a total of \$560 million in coverage limits per incident.

The SONGS owners, including SDG&E, also maintain nuclear property damage insurance at \$1.5 billion, with a \$500 million property damage sublimit on the ISFSI, which exceeds the minimum federal requirements of \$1.06 billion. This insurance coverage is provided through NEIL. The NEIL policies have specific exclusions and limitations that can result in reduced or eliminated coverage. Insured members as a group are subject to retrospective premium assessments to cover losses sustained by NEIL under all issued policies. SDG&E could be assessed up to \$10.4 million of retrospective premiums based on overall member claims.

The nuclear property insurance program includes an industry aggregate loss limit for non-certified acts of terrorism (as defined by the Terrorism Risk Insurance Act) of \$3.24 billion. This is the maximum amount that will be paid to insured members who suffer losses or damages from these non-certified terrorist acts.

NOTE 16. COMMITMENTS AND CONTINGENCIES

LEGAL PROCEEDINGS

We accrue losses for a legal proceeding when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. However, the uncertainties inherent in legal proceedings make it difficult to reasonably estimate the costs and effects of resolving these matters. Accordingly, actual costs incurred may differ materially from amounts accrued, may exceed applicable insurance coverage and could materially adversely affect our business, cash flows, results of operations, financial condition and prospects. Unless otherwise indicated, we are unable to estimate reasonably possible losses in excess of any amounts accrued.

At December 31, 2019, loss contingency accruals for legal matters, including associated legal fees, that are probable and estimable were \$68 million for Sempra Energy Consolidated and \$21 million for SoCalGas. Amounts for Sempra Energy Consolidated and SoCalGas include \$10 million for matters related to the Aliso Canyon natural gas storage facility gas leak, which we discuss below. We discuss our policy regarding accrual of legal fees in Note 1.

SDG&E

2007 Wildfire Litigation and Net Cost Recovery Status

SDG&E has resolved all litigation associated with three wildfires that occurred in October 2007.

As a result of a CPUC decision denying SDG&E's request to recover wildfire costs, SDG&E wrote off the wildfire regulatory asset, resulting in a charge of \$351 million (\$208 million after tax) in the third quarter of 2017. SDG&E applied to the CPUC for rehearing of its decision but, in July 2018, the CPUC denied SDG&E's rehearing request. In November 2018, the California Court of Appeal denied SDG&E's petition to reverse the CPUC's decision. In January 2019, the California Supreme Court denied SDG&E's petition to reverse the decisions of the CPUC and the California Court of Appeal. In October 2019, the U.S. Supreme Court declined to review the decision, effectively ending SDG&E's efforts to recover the wildfire regulatory asset.

SoCalGas

Aliso Canyon Natural Gas Storage Facility Gas Leak

From October 23, 2015 through February 11, 2016, SoCalGas experienced a natural gas leak from one of the injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility in Los Angeles County. As described below in "Civil and Criminal Litigation" and "Regulatory Proceedings," numerous lawsuits, investigations and regulatory proceedings have been initiated in response to the Leak, resulting in significant costs, which together with other Leak-related costs are discussed below in "Cost Estimates and Accounting Impact."

Civil and Criminal Litigation. As of February 21, 2020, 393 lawsuits, including approximately 36,000 plaintiffs, are pending against SoCalGas related to the Leak, some of which have also named Sempra Energy. All these cases, other than a matter brought by the Los Angeles County District Attorney and the federal securities class action discussed below, are coordinated before a single court in the LA Superior Court for pretrial management.

In November 2017, in the coordinated proceeding, individuals and business entities filed a Third Amended Consolidated Master Case Complaint for Individual Actions, through which their separate lawsuits will be managed for pretrial purposes. The consolidated complaint asserts causes of action for negligence, negligence per se, private and public nuisance (continuing and permanent), trespass, inverse condemnation, strict liability, negligent and intentional infliction of emotional distress, fraudulent concealment, loss of consortium, wrongful death and violations of Proposition 65 against SoCalGas, with certain causes of action also naming Sempra Energy. The consolidated complaint seeks compensatory and punitive damages for personal injuries, lost wages and/or lost profits, property damage and diminution in property value, injunctive relief, costs of future medical monitoring, civil penalties (including penalties associated with Proposition 65 claims alleging violation of requirements for warning about certain chemical exposures), and attorneys' fees. The court has scheduled an initial trial for June 24, 2020 for a small number of randomly selected individual plaintiffs.

In January 2017, two consolidated class action complaints were filed against SoCalGas and Sempra Energy, one on behalf of a putative class of persons and businesses who own or lease real property within a five-mile radius of the well (the Property Class Action), and a second on behalf of a putative class of all persons and entities conducting business within five miles of the facility (the Business Class Action). Both complaints assert claims for strict liability for ultra-hazardous activities, negligence and violation of the California Unfair Competition Law. The Property Class Action also asserts claims for negligence per se, trespass, permanent and continuing public and private nuisance, and inverse condemnation. The Business Class Action also asserts a claim for negligent interference with prospective economic advantage. Both complaints seek compensatory, statutory and punitive damages, injunctive relief and attorneys' fees. In May 2019, the California Supreme Court ruled that the purely economic damages alleged in the Business Class Action are not recoverable, and in September 2019, in accordance with the ruling, the LA Superior Court dismissed the strict liability, negligence and negligent interference with prospective economic advantage causes of action in the Business Class Action complaint.

Three property developers filed complaints in July and October of 2018 against SoCalGas and Sempra Energy alleging causes of action for strict liability, negligence per se, negligence, continuing nuisance, permanent nuisance and violation of the California Unfair Competition Law, as well as claims for negligence against certain directors of SoCalGas. The complaints seek compensatory, statutory and punitive damages, injunctive relief and attorneys' fees.

In October 2018 and January 2019, complaints were filed on behalf of 51 firefighters stationed near the Aliso Canyon natural gas storage facility who allege they were injured by exposure to chemicals released during the Leak. The complaints against SoCalGas and Sempra Energy assert causes of actions for negligence, negligence per se, private and public nuisance (continuing and permanent), trespass, inverse condemnation, strict liability, negligent and intentional infliction of emotional distress, fraudulent concealment and loss of consortium. The complaints seek compensatory and punitive damages for personal injuries, lost wages and/or lost profits, property damage and diminution in property value, and attorney's fees.

Five shareholder derivative actions are also pending alleging breach of fiduciary duties against certain officers and certain directors of Sempra Energy and/or SoCalGas, four of which were joined in a Consolidated Shareholder Derivative Complaint in August 2017. In November 2019, the Superior Court dismissed the complaints on the grounds that the plaintiffs failed to adequately plead their claims, but gave leave for them to amend the complaints to cure the defects. In February 2020, an amended complaint was filed.

In addition, a federal securities class action alleging violation of the federal securities laws was filed against Sempra Energy and certain of its officers in July 2017 in the U.S. District Court for the Southern District of California. In March 2018, the court dismissed the action with prejudice. The plaintiffs have appealed the dismissal.

Three actions by public entities were filed, including complaints by the County of Los Angeles, on behalf of itself and the people of the State of California, the California Attorney General, acting in an independent capacity and on behalf of the people of the State of California and CARB, and the Los Angeles City Attorney alleging public nuisance, unfair competition, and violations of California Health and Safety Code provisions regarding discharge of contaminants, among other things, which sought injunctive relief, abatement, civil penalties and damages. In February 2019, the LA Superior Court approved a settlement between SoCalGas and the Los Angeles City Attorney's Office, the County of Los Angeles, the California Office of the Attorney General and CARB under which SoCalGas made payments and agreed to provide funding for environmental projects totaling \$120 million, including \$21 million in civil penalties, as well as other safety-related commitments.

In February 2016, the Los Angeles County District Attorney's Office filed a misdemeanor criminal complaint against SoCalGas seeking penalties and other remedies for, among other things, alleged failure to provide timely notice of the Leak pursuant to California Health and Safety Code section 25510(a), Los Angeles County Code section 12.56.030, and Title 19 California Code of Regulations section 2703(a). Pursuant to a settlement agreement with the Los Angeles County District Attorney's Office, SoCalGas agreed to plead no contest to the notice charge and pay the maximum fine of \$75,000, penalty assessments of approximately \$233,500, and operational commitments estimated to cost approximately \$6 million, reimbursements and assessments in exchange for the Los Angeles County District Attorney's Office moving to dismiss the remaining counts at sentencing and settling the complaint (the District Attorney Settlement). SoCalGas completed the commitments and obligations under the District Attorney Settlement, and in November 2016, the LA Superior Court approved the settlement and entered judgment on the notice charge. Certain individuals who objected to the settlement petitioned the Court of Appeal to vacate the judgment, contending they should be granted restitution. In July 2019, the Court of Appeal denied the petition in part, but remanded the matter to the trial court to give the petitioners an opportunity to prove damages stemming from only the three-day delay in reporting the Leak.

Regulatory Proceedings. In January 2016, CalGEM and the CPUC directed an independent analysis of the technical root cause of the Leak to be conducted by Blade. In May 2019, Blade released its report, which concluded that the Leak was caused by a failure of the production casing of the well due to corrosion and that attempts to stop the Leak were not effectively conducted, but did not identify any instances of non-compliance by SoCalGas. Blade concluded that SoCalGas' compliance activities conducted prior to the Leak did not find indications of a casing integrity issue. Blade opined, however, that there were measures, none of which were required by gas storage regulations at the time, that could have been taken to aid in the early identification of corrosion and that, in Blade's opinion, would have prevented or mitigated the Leak. The report also identified well safety practices and regulations that have since been adopted by CalGEM and implemented by SoCalGas, which address most of the root cause of the Leak identified during Blade's investigation.

In June 2019, the CPUC opened an OII to consider penalties against SoCalGas for the Leak, which it later bifurcated into two phases. The first phase will consider whether SoCalGas violated Public Utilities Code Section 451 or other laws, CPUC orders or decisions, rules or requirements, whether SoCalGas engaged in unreasonable and/or imprudent practices with respect to its operation and maintenance of the Aliso Canyon natural gas storage facility or its related record-keeping practices, whether SoCalGas cooperated sufficiently with the Safety Enforcement Division (SED) and Blade during the pre-formal investigation, and whether any of the mitigation proposed by Blade should be implemented to the extent not already done. In November 2019, SED, based largely on the Blade report, alleged a total of 330 violations, asserting that SoCalGas violated California Public Utilities Code Section 451 and failed to cooperate in the investigation and to keep proper records. Hearings in the first phase of the OII are scheduled to begin in April 2020. The second phase will consider whether SoCalGas should be sanctioned for the Leak and what penalties, if any, should be imposed for any violations proven in the first phase, as well as determine the amounts of various costs incurred by SoCalGas and other parties in connection with the Leak and the ratemaking treatment or other disposition of such costs. In a January 2016 emergency proclamation, the Governor ordered the CPUC to ensure that SoCalGas covers costs related to the Leak and its response, while protecting ratepayers. In addition, CalGEM is investigating the Leak.

In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility, while still maintaining energy and electric reliability for the region, but

excluding issues with respect to air quality, public health, causation, culpability or cost responsibility regarding the Leak. The first phase established a framework for the hydraulic, production cost and economic modeling assumptions for the potential reduction in usage or elimination of the Aliso Canyon natural gas storage facility. Phase 2 of the proceeding, which will evaluate the impacts of reducing or eliminating the Aliso Canyon natural gas storage facility using the established framework and models, began in the first quarter of 2019. The CPUC has indicated that it expects to issue its report relative to Phase 2 in 2020. In December 2019, the CPUC added a third phase to consider alternative means for meeting or avoiding the demand for the facility's services if it were eliminated in either 2027 or 2045.

If the Aliso Canyon natural gas storage facility were to be permanently closed, or if future cash flows from its operation were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2019, the Aliso Canyon natural gas storage facility had a net book value of \$769 million. Any significant impairment of this asset, or higher operating costs and additional capital expenditures incurred by SoCalGas which may not be recoverable in customer rates, could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations, financial condition and cash flows.

Cost Estimates and Accounting Impact. SoCalGas has incurred significant costs for temporary relocation of community residents; to control the well and stop the Leak; to mitigate the natural gas released; to purchase natural gas to replace what was lost through the Leak; to defend against and, in certain cases, settle, civil and criminal litigation arising from the Leak; to pay the costs of the government-ordered response to the Leak including the costs for Blade to conduct the root cause analysis described above; to respond to various government and agency investigations regarding the Leak; and to comply with increased regulation imposed as a result of the Leak. At December 31, 2019, SoCalGas estimates its costs related to the Leak are \$1,116 million (the cost estimate), which includes \$1,086 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. Approximately 51% of the cost estimate is for the temporary relocation program (including cleaning costs and certain labor costs). A substantial portion of the cost estimate has been paid, and \$9 million is accrued as Reserve for Aliso Canyon Costs and \$7 million is accrued in Deferred Credits and Other as of December 31, 2019 on SoCalGas' and Sempra Energy's Consolidated Balance Sheets.

Except for the amounts paid or estimated to settle certain actions as described above, the cost estimate does not include litigation or regulatory costs as it is not possible at this time to predict the outcome of these actions or reasonably estimate the costs to defend or resolve the actions or the amount of damages, restitution, or civil, administrative or criminal fines, sanctions, penalties or other costs or remedies that may be imposed or incurred, which could be significant. The cost estimate also does not include certain other costs incurred by Sempra Energy associated with defending against shareholder derivative lawsuits and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate.

Excluding directors' and officers' liability insurance, we have at least four kinds of insurance policies that together we estimate provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. We have received insurance payments for many of the costs described above, including temporary relocation and associated processing costs, control-of-well expenses, costs of the government-ordered response to the Leak, legal costs and lost gas. We intend to pursue the full extent of our insurance coverage for the costs we have incurred or may incur. There can be no assurance that we will be successful in obtaining additional insurance recovery for these costs. If any costs are not covered by insurance (including any costs in excess of applicable policy limits), if there are significant delays in receiving insurance recoveries, or if the insurance recoveries are subject to income taxes while the associated costs are not tax deductible, such amounts could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As of December 31, 2019, we recorded the expected recovery of the cost estimate related to the Leak of \$339 million as Insurance Receivable for Aliso Canyon Costs on SoCalGas' and Sempra Energy's Consolidated Balance Sheets. This amount is net of insurance retentions and \$747 million of insurance proceeds we received through December 31, 2019. If we were to conclude that this receivable or a portion of it is no longer probable of recovery from insurers, some or all of this receivable would be charged against earnings, which could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Sempra Mexico

Energía Costa Azul. IEnova has been engaged in a long-running land dispute relating to property adjacent to its ECA LNG Regasification facility near Ensenada, Mexico. A claimant to the adjacent property filed complaints in the federal Agrarian Court challenging the refusal of SEDATU in 2006 to issue a title to him for the disputed property. In November 2013, the federal Agrarian Court ordered that SEDATU issue the requested title and cause it to be registered. Both SEDATU and IEnova challenged

the ruling, due to lack of notification of the underlying process. In May 2019, a federal court in Mexico reversed the ruling. IEnova expects additional proceedings regarding the claims.

Several administrative challenges are pending in Mexico before the Mexican environmental protection agency and the Federal Tax and Administrative Courts seeking revocation of the environmental impact authorization issued to the ECA LNG Regasification facility in 2003. These cases generally allege that the conditions and mitigation measures in the environmental impact authorization are inadequate and challenge findings that the activities of the terminal are consistent with regional development guidelines.

Additionally, in August 2018, a claimant filed a challenge in the federal district court in Ensenada, Baja California in relation to the environmental and social impact permits issued to ECA LNG JV for the potential liquefaction-export project in September 2017 and December 2017, respectively, to allow natural gas liquefaction activities at the ECA LNG Regasification facility. The court issued a provisional injunction in September 2018 and maintained that provisional injunction at an April 2019 hearing. In December 2018, the relevant Mexican regulators approved modifications to the environmental permit that facilitate the development of the proposed natural gas liquefaction facility by ECA LNG JV in two phases. In May 2019, the court canceled the provisional injunction. The claimant has appealed the court's decision. That appeal and the claimant's underlying challenge to the permits remain pending.

Cases involving two parcels of real property have been filed against the ECA LNG Regasification facility. In one case, filed in the federal Agrarian Court in 2006, the plaintiffs seek to annul the recorded property title for a parcel on which the ECA LNG Regasification facility is situated and to obtain possession of a different parcel that allegedly sits in the same place. Another civil complaint filed in the state court was served in April 2012 seeking to invalidate the contract by which the ECA LNG Regasification facility purchased another of the parcels, on the grounds the purchase price was unfair; the plaintiff filed a second complaint in 2013 in the federal Agrarian Court seeking an order that SEDATU issue title to her. In January 2016, the federal Agrarian Court ruled against the plaintiff, and the plaintiff appealed the ruling. In May 2018, the state court dismissed the civil complaint, and the plaintiff has appealed. IEnova expects further proceedings on these two matters.

An unfavorable final decision on these property disputes or permit challenges could materially and adversely affect our existing natural gasification operations and our planned natural gas liquefaction projects currently in development at the ECA LNG Regasification facility and potential ECA LNG JV liquefaction-export project.

Guaymas-El Oro Segment of the Sonora Pipeline. IEnova's Sonora natural gas pipeline consists of two segments, the Sasabe-Puerto Libertad-Guaymas segment, and the Guaymas-El Oro segment. Each segment has its own service agreement with the CFE. In 2015, the Yaqui tribe, with the exception of some members living in the Bécum community, granted its consent and a right-of-way easement agreement for the construction of the Guaymas-El Oro segment of the Sonora natural gas pipeline that crosses its territory. Representatives of the Bécum community filed a legal challenge in Mexican federal court demanding the right to withhold consent for the project, the stoppage of work in the Yaqui territory and damages. In 2016, the judge granted a suspension order that prohibited the construction of such segment through the Bécum community territory. Because the pipeline does not pass through the Bécum community, IEnova did not believe the 2016 suspension order prohibited construction in the remainder of the Yaqui territory. Construction of the Guaymas-El Oro segment was completed, and commercial operations began in May 2017.

Following the start of commercial operations of the Guaymas-El Oro segment, IEnova reported damage to the Guaymas-El Oro segment of the Sonora pipeline in the Yaqui territory that has made that section inoperable since August 23, 2017 and, as a result, IEnova declared a force majeure event. In 2017, an appellate court ruled that the scope of the 2016 suspension order encompassed the wider Yaqui territory, which has prevented IEnova from making repairs to put the pipeline back in service. In July 2019, a federal district court ruled in favor of IEnova and held that the Yaqui tribe was properly consulted and that consent from the Yaqui tribe was properly received. Representatives of the Bécum community appealed this decision, causing the suspension order preventing IEnova from repairing the damage to the Guaymas-El Oro segment of the Sonora pipeline in the Yaqui territory to remain in place until the appeals process is exhausted.

IEnova exercised its rights under the contract, which included seeking force majeure payments for the two-year period such force majeure payments were required to be made, which ended on August 22, 2019.

In July 2019, the CFE filed a request for arbitration generally to nullify certain contract terms that provide for fixed capacity payments in instances of force majeure and made a demand for substantial damages in connection with the force majeure event. In September 2019, the arbitration process ended when IEnova and the CFE reached an agreement to restart natural gas transportation service on the earlier of completion of repair of the damaged pipeline or January 15, 2020, and to modify the tariff structure and extend the term of the contract by 10 years. In January 2020, IEnova and the CFE agreed to extend the January 15, 2020 new service start date to May 15, 2020. Under the revised agreement, the CFE will resume making payments only when the damaged section of the Guaymas-El Oro segment of the Sonora pipeline is repaired. If the pipeline is not repaired by May 15,

2020 and the parties do not agree on a new service start date, IEnova retains the right to terminate the contract and seek to recover its reasonable and documented costs and lost profits.

If IEnova is unable to make such repairs and resume operations in the Guaymas-El Oro segment of the Sonora pipeline within this time frame or if IEnova terminates the contract and is unable to obtain recovery, there may be a material adverse impact on Sempra Energy's results of operations and cash flows and our ability to recover the carrying value of our investment. The Sasabe-Puerto Libertad-Guaymas segment of the Sonora pipeline remains in full operation and is not impacted by these developments.

Sur de Texas-Tuxpan Marine Pipeline. Sempra Mexico has a 40% interest in IMGJV, a JV with a subsidiary of TC Energy, to build, own and operate the Sur de Texas-Tuxpan natural gas marine pipeline in Mexico. The JV has an agreement to provide the CFE with natural gas transportation services under a 25-year agreement, denominated in U.S. dollars. IMGJV previously received force majeure payments from the CFE from November 2018 through April 2019, after construction delays extended the commercial operation date. In June 2019, the CFE filed a request for arbitration generally to nullify certain contract terms that provide for fixed capacity payments in instances of force majeure and made a demand for substantial damages in connection with the force majeure event. In September 2019, the JV and the CFE amended the gas transportation services agreement to modify the tariff structure and extend the term of the contract by 10 years, which ended the arbitration process. Construction and commissioning activities on the pipeline were completed in June 2019 and, in September 2019, IMGJV received acceptance from the CFE allowing the pipeline to enter commercial operation and for service under the gas transportation contract to commence.

Other Litigation

Sempra Energy holds an NCI in RBS Sempra Commodities, a limited liability partnership in the process of being liquidated. NatWest Markets plc, formerly RBS, our partner in the JV, paid an assessment of £86 million (approximately \$138 million in U.S. dollars) in October 2014 to HMRC for denied VAT refund claims filed in connection with the purchase of carbon credit allowances by RBS SEE, a subsidiary of RBS Sempra Commodities. RBS SEE has since been sold to JP Morgan and later to Mercuria Energy Group, Ltd. HMRC asserted that RBS was not entitled to reduce its VAT liability by VAT paid on certain carbon credit purchases during 2009 because RBS knew or should have known that certain vendors in the trading chain did not remit their own VAT to HMRC. After paying the assessment, RBS filed a Notice of Appeal of the assessment with the First-Tier Tribunal. Trial on the matter has been scheduled between November 2, 2020 and December 11, 2020.

In 2015, liquidators filed a claim in the High Court of Justice against RBS and Mercuria Energy Europe Trading Limited (the Defendants) on behalf of 10 companies (the Liquidating Companies) that engaged in carbon credit trading via chains that included a company that traded directly with RBS SEE. The claim alleges that the Defendants' participation in the purchase and sale of carbon credits resulted in the Liquidating Companies' carbon credit trading transactions creating a VAT liability they were unable to pay, and that the Defendants are liable to provide for equitable compensation due to dishonest assistance and for compensation under the U.K. Insolvency Act of 1986. Trial on the matter was held in June and July of 2018, at the close of which the Liquidating Companies asserted that the Defendants were liable to the Liquidating Companies in the amount of £71.5 million (approximately \$95 million in U.S. dollars at December 31, 2019) for dishonest assistance and, to the extent that claim is unsuccessful, to the liquidators in the same amount under the U.K. Insolvency Act of 1986. If the High Court of Justice finds the Defendants liable, it will determine the amount. JP Morgan has notified us that Mercuria Energy Group, Ltd. has sought indemnity for the claim, and JP Morgan has in turn sought indemnity from Sempra Energy and RBS.

While the ultimate outcome remains uncertain, in the third quarter of 2018, we impaired our remaining \$65 million equity method investment in RBS Sempra Commodities.

Certain EFH subsidiaries that we acquired as part of the Merger are defendants in personal injury lawsuits brought in state courts throughout the U.S. As of February 21, 2020, 275 such lawsuits are pending, with 182 such lawsuits having been served. These cases allege illness or death as a result of exposure to asbestos in power plants designed and/or built by companies whose assets were purchased by predecessor entities to the EFH subsidiaries, and generally assert claims for product defects, negligence, strict liability and wrongful death. They seek compensatory and punitive damages. Additionally, in connection with the EFH bankruptcy proceeding, approximately 28,000 proofs of claim were filed on behalf of persons who allege exposure to asbestos under similar circumstances and assert the right to file such lawsuits in the future. We anticipate additional lawsuits will be filed. None of these claims or lawsuits were discharged in the EFH bankruptcy proceeding.

We are also defendants in ordinary routine litigation incidental to our businesses, including personal injury, employment litigation, product liability, property damage and other claims. Juries have demonstrated an increasing willingness to grant large awards, including punitive damages, in these types of cases.

LEASES

A lease exists when a contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. We determine if an arrangement is or contains a lease at inception of the contract.

Some of our lease agreements contain nonlease components, which represent activities that transfer a separate good or service to the lessee. As the lessee for both operating and finance leases, we have elected to combine lease and nonlease components as a single lease component for real estate, fleet vehicles, power generating facilities, and pipelines, whereby fixed or in-substance fixed payments allocable to the nonlease component are accounted for as part of the related lease liability and ROU asset. As the lessor, we have elected to combine lease and nonlease components as a single lease component for real estate and power generating facilities if the timing and pattern of transfer of the lease and nonlease components are the same and the lease component would be classified as an operating lease if accounted for separately.

Lessee Accounting

We have operating and finance leases for real and personal property (including office space, land, fleet vehicles, machinery and equipment, warehouses and other operational facilities) and PPAs with renewable energy and peaker plant facilities.

Some of our leases include options to extend the lease terms for up to 25 years, while others include options to terminate the lease within one year. Our lease liabilities and ROU assets are based on lease terms that may include such options to extend or terminate the lease when it is reasonably certain that we will exercise that option.

Certain of our contracts are short-term leases, which have a lease term of 12 months or less at lease commencement. We do not recognize a lease liability or ROU asset arising from short-term leases for all existing classes of underlying assets. In such cases, we recognize short-term lease costs on a straight-line basis over the lease term. Our short-term lease costs for the period reasonably reflect our short-term lease commitments.

Certain of our leases contain escalation clauses requiring annual increases in rent ranging from 2% to 4% or based on the Consumer Price Index. The rentals payable under these leases may increase by a fixed amount each year or by a percentage of a base year. Variable lease payments that are based on an index or rate are included in the initial measurement of our lease liability and ROU asset based on the index or rate at lease commencement and are not remeasured because of changes to the index or rate. Rather, changes to the index or rate are treated as variable lease payments and recognized in the period in which the obligation for those payments is incurred.

Similarly, PPAs for the purchase of renewable energy at SDG&E require lease payments based on a stated rate per MWh produced by the facilities, and we are required to purchase substantially all the output from the facilities. SDG&E is required to pay additional amounts for capacity charges and actual purchases of energy that exceed the minimum energy commitments. Under these contracts, we do not recognize a lease liability or ROU asset for leases for which there are no fixed lease payments. Rather, these variable lease payments are recognized separately as variable lease costs. SDG&E estimates these variable lease payments to be \$326 million in 2020, \$328 million in 2021, \$328 million in 2022, \$327 million in 2023, \$328 million in 2024 and \$3,707 million thereafter.

As of the lease commencement date, we recognize a lease liability for our obligation to make future lease payments, which we initially measure at present value using our incremental borrowing rate at the date of lease commencement, unless the rate implicit in the lease is readily determinable. We determine our incremental borrowing rate based on the rate of interest that we would have to pay to borrow, on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment. We also record a ROU asset for our right to use the underlying asset, which is initially equal to the lease liability and adjusted for lease payments made at or before lease commencement, lease incentives, and any initial direct costs. Like other long-lived assets, we test ROU assets for recoverability whenever events or changes in circumstances have occurred that may affect the recoverability or the estimated useful lives of the ROU assets.

For our operating leases, our non-regulated entities recognize a single lease cost on a straight-line basis over the lease term in operating expenses. The California Utilities recognize this single lease cost on a basis that is consistent with the recovery of such costs in accordance with U.S. GAAP governing rate-regulated operations.

For our finance leases, the interest expense on the lease liability and amortization of the ROU asset are accounted for separately. Our non-regulated entities use the effective interest rate method to account for the imputed interest on the lease liability and amortize the ROU asset on a straight-line basis over the lease term. The California Utilities recognize amortization of the ROU asset on a basis that is consistent with the recovery of such costs in accordance with U.S. GAAP governing rate-regulated operations.

Our leases do not contain any material residual value guarantees, restrictions or covenants.

Classification of ROU assets and lease liabilities and the weighted-average remaining lease term and discount rate associated with operating and finance leases are summarized in the table below.

LESSEE INFORMATION ON THE CONSOLIDATED BALANCE SHEETS

(Dollars in millions)

	December 31, 2019		
	Sempra Energy Consolidated	SDG&E	SoCalGas
Right-of-use assets:			
Operating leases:			
Right-of-use assets	\$ 591	\$ 130	\$ 94
Finance leases:			
Property, plant and equipment	1,353	1,326	27
Accumulated depreciation	(64)	(57)	(7)
Property, plant and equipment, net	1,289	1,269	20
Total right-of-use assets	\$ 1,880	\$ 1,399	\$ 114
Lease liabilities:			
Operating leases:			
Other current liabilities	\$ 52	\$ 27	\$ 18
Deferred credits and other	445	102	75
	497	129	93
Finance leases:			
Current portion of long-term debt and finance leases	26	20	6
Long-term debt and finance leases	1,263	1,250	13
	1,289	1,270	19
Total lease liabilities	\$ 1,786	\$ 1,399	\$ 112
Weighted-average remaining lease term (in years):			
Operating leases	13	6	6
Finance leases	19	20	6
Weighted-average discount rate:			
Operating leases	6.01%	3.55%	3.73%
Finance leases	14.76%	14.83%	3.23%

The components of lease costs were as follows:

LESSEE INFORMATION ON THE CONSOLIDATED STATEMENTS OF OPERATIONS⁽¹⁾

(Dollars in millions)

	Year ended December 31, 2019		
	Sempra Energy Consolidated	SDG&E	SoCalGas
Operating lease costs	\$ 96	\$ 33	\$ 27
Finance lease costs:			
Amortization of ROU assets	24	18	6
Interest on lease liabilities	173	173	—
Total finance lease costs	197	191	6
Short-term lease costs ⁽²⁾	6	2	—
Variable lease costs ⁽²⁾	482	471	10
Total lease costs	\$ 781	\$ 697	\$ 43

⁽¹⁾ Includes costs capitalized in PP&E

⁽²⁾ Short-term leases with variable lease costs are recorded and presented as variable lease costs.

Cash paid for amounts included in the measurement of lease liabilities was as follows:

LESSEE INFORMATION ON THE CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Year ended December 31, 2019		
	Sempra Energy Consolidated	SDG&E	SoCalGas
Operating activities:			
Cash paid for operating leases	\$ 101	\$ 33	\$ 27
Cash paid for finance leases	173	173	—
Financing activities:			
Cash paid for finance leases	24	18	6
Increase in operating lease obligations for right-of-use assets	585	158	118
Increase in finance lease obligations for investment in PP&E	38	16	22

The table below presents the maturity analysis of our lease liabilities and reconciliation to the present value of lease liabilities:

LESSEE MATURITY ANALYSIS OF LIABILITIES

(Dollars in millions)

	December 31, 2019					
	Sempra Energy Consolidated		SDG&E		SoCalGas	
	Operating leases	Finance leases	Operating leases	Finance leases	Operating leases	Finance leases
2020	\$ 75	\$ 198	\$ 30	\$ 192	\$ 22	\$ 6
2021	75	193	32	190	20	3
2022	63	192	22	190	18	2
2023	54	192	17	190	13	2
2024	50	187	15	185	12	2
Thereafter	452	2,629	28	2,624	19	5
Total undiscounted lease payments	769	3,591	144	3,571	104	20
Less: imputed interest	(272)	(2,302)	(15)	(2,301)	(11)	(1)
Total lease liabilities	497	1,289	129	1,270	93	19
Less: current lease liabilities	(52)	(26)	(27)	(20)	(18)	(6)
Long-term lease liabilities	\$ 445	\$ 1,263	\$ 102	\$ 1,250	\$ 75	\$ 13

Leases that Have Not Yet Commenced

SDG&E and SoCalGas have lease agreements for future acquisitions of fleet vehicles with an aggregate maximum lease limit of \$174 million. SDG&E and SoCalGas have utilized \$54 million and \$72 million, respectively, of these maximum limits as of December 31, 2019.

Sempra LNG has a lease agreement for office space in Houston, Texas that will commence in February 2020. We expect the future fixed lease payments to begin in 2021 and to be \$1 million in 2021, \$2 million per year in 2022 through 2024, and \$16 million thereafter until expiration in 2031.

Lease Disclosures Under Previous U.S. GAAP

Rent expense for operating leases was as follows:

RENT EXPENSE – OPERATING LEASES

(Dollars in millions)

	Years ended December 31,	
	2018	2017
Sempra Energy Consolidated	\$ 122	\$ 107
SDG&E	27	28
SoCalGas	41	43

The annual amortization charge for PPAs accounted for as capital leases at both Sempra Energy Consolidated and SDG&E was \$11 million and \$8 million in 2018 and 2017, respectively. The annual depreciation charge for fleet vehicles and other assets in 2018 and 2017 was \$8 million and \$3 million, respectively, at Sempra Energy Consolidated, including \$2 million and \$1 million, respectively, at SDG&E and \$6 million and \$2 million, respectively, at SoCalGas.

The table below presents the future minimum lease payments under previous U.S. GAAP:

FUTURE MINIMUM LEASE PAYMENTS

(Dollars in millions)

	December 31, 2018							
	Sempra Energy Consolidated			SDG&E		SoCalGas		
	Build-to-suit arrangement	Operating leases	Capital leases	Operating leases	Capital leases	Operating leases	Capital leases	
2019	\$ 10	\$ 77	\$ 215	\$ 23	\$ 212	\$ 26	\$ 3	
2020	11	55	210	22	210	22	—	
2021	11	53	211	22	211	21	—	
2022	11	50	211	21	211	20	—	
2023	11	42	211	17	211	16	—	
Thereafter	217	253	3,196	48	3,196	28	—	
Total undiscounted lease payments	\$ 271	\$ 530	4,254	\$ 153	4,251	\$ 133	3	
Less: estimated executory costs			(480)		(480)		—	
Less: imputed interest			(2,483)		(2,483)		—	
Total future minimum lease payments			\$ 1,291		\$ 1,288		\$ 3	

Lessors Accounting

Sempra Mexico is a lessor for certain of its natural gas and ethane pipelines, compressor stations and LPG storage facilities. These operating leases expire at various dates from 2021 through 2039.

Sempra Mexico expects to continue to derive value from the underlying assets associated with its pipelines following the end of their respective lease terms based on the expected remaining useful life, expected market conditions and plans to re-market and re-contract the underlying assets.

Generally, we recognize operating lease income on a straight-line basis over the lease term and evaluate the underlying asset for impairment. Certain of our leases contain rate adjustments or are based on foreign currency exchange rates that may result in lease payments received that vary from one period to the next.

We provide information below for leases for which we are the lessor.

LESSOR INFORMATION – SEMPRA ENERGY

(Dollars in millions)

	December 31,	
	2019	2018
Assets subject to operating leases:		
Assets held for sale	\$ —	\$ 172
Property, plant and equipment ⁽¹⁾	1,038	1,022
Accumulated depreciation	(179)	(142)
Property, plant and equipment, net	\$ 859	\$ 880
December 31, 2019		
Maturity analysis of operating lease payments:		
2020		\$ 201
2021		193
2022		193
2023		193
2024		193
Thereafter		2,402
Total undiscounted cash flows		\$ 3,375

⁽¹⁾ Included in Machinery and Equipment — Pipelines and Storage within the major functional categories of PP&E

LESSOR INFORMATION ON THE CONSOLIDATED STATEMENTS OF OPERATIONS – SEMPRA ENERGY

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Fixed lease payments	\$ 200	\$ 194	\$ 193
Variable lease payments	6	72	44
Total revenues from operating leases ⁽¹⁾	\$ 206	\$ 266	\$ 237
Depreciation expense	\$ 38	\$ 72	\$ 57

⁽¹⁾ Included in Revenues: Energy-Related Businesses on the Consolidated Statements of Operations.

CONTRACTUAL COMMITMENTS

Natural Gas Contracts

SoCalGas has responsibility for procuring natural gas for both SDG&E's and SoCalGas' core customers in a combined portfolio. SoCalGas buys natural gas under short-term and long-term contracts for this portfolio from various producing regions in the southwestern U.S., U.S. Rockies and Canada, primarily based on published monthly bid-week indices.

SoCalGas transports natural gas primarily under long-term firm interstate pipeline capacity agreements that provide for annual reservation charges, which are recovered in rates. SoCalGas has commitments with interstate pipeline companies for firm pipeline capacity under contracts that expire at various dates through 2031.

Sempra LNG has various capacity agreements for natural gas storage and transportation. Transportation costs on these agreements vary based on pipeline capacity.

In May 2017, Sempra LNG received settlement proceeds of \$57 million from a breach of contract claim against a counterparty in bankruptcy court. Of the total proceeds, \$47 million related to a charge we recorded in 2016 resulting from the permanent release of certain pipeline capacity. Sempra LNG recorded the settlement proceeds as a reduction to Energy-Related Businesses Cost of Sales on Sempra Energy's Consolidated Statement of Operations in 2017.

Payments on our natural gas contracts could exceed the minimum commitment based on portfolio needs. At December 31, 2019, the future minimum payments under existing natural gas contracts and natural gas storage and transportation contracts are as follows:

FUTURE MINIMUM PAYMENTS – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Storage and transportation	Natural gas ⁽¹⁾	Total ⁽¹⁾
2020	\$ 169	\$ 23	\$ 192
2021	161	15	176
2022	76	11	87
2023	54	11	65
2024	43	12	55
Thereafter	297	7	304
Total minimum payments	\$ 800	\$ 79	\$ 879

⁽¹⁾ Excludes amounts related to the LNG purchase agreement discussed below.

FUTURE MINIMUM PAYMENTS – SOCALGAS

(Dollars in millions)

	Transportation	Natural gas	Total
2020	\$ 122	\$ 2	\$ 124
2021	117	1	118
2022	36	—	36
2023	23	—	23
2024	13	—	13
Thereafter	35	—	35
Total minimum payments	\$ 346	\$ 3	\$ 349

Total payments under natural gas contracts and natural gas storage and transportation contracts as well as payments to meet additional portfolio needs at Sempra Energy Consolidated and SoCalGas were as follows:

PAYMENTS UNDER NATURAL GAS CONTRACTS

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated	\$ 1,326	\$ 1,345	\$ 1,429
SoCalGas	1,181	1,169	1,213

LNG Purchase Agreement

Sempra LNG has a sale and purchase agreement for the supply of LNG to the ECA LNG Regasification facility. The commitment amount is calculated using a predetermined formula based on estimated forward prices of the index applicable from 2020 to 2029. Although this agreement specifies a number of cargoes to be delivered, under its terms, the customer may divert certain cargoes, which would reduce amounts paid under the agreement by Sempra LNG.

At December 31, 2019, the following LNG commitment amounts are based on the assumption that all cargoes, less those already confirmed to be diverted, under the agreement are delivered:

LNG COMMITMENT AMOUNTS	
<i>(Dollars in millions)</i>	
2020	\$ 265
2021	368
2022	370
2023	374
2024	387
Thereafter	1,842
Total	\$ 3,606

Actual LNG purchases in 2019, 2018 and 2017 have been significantly lower than the maximum amount provided under the agreement due to the customer electing to divert most cargoes as allowed by the agreement.

Purchased-Power Contracts

For 2020, SDG&E expects to meet its customer power requirements from the following resource types:

- Long-term contracts: 27% (of which 26% is provided by renewable energy contracts expiring on various dates through 2041)
- Other SDG&E-owned generation and tolling contracts: 59%
- Spot market purchases: 14%

Payments on our purchased-power contracts could exceed the minimum commitments based on energy needs. At December 31, 2019, the future minimum payments under long-term purchased-power contracts for Sempra Energy Consolidated and SDG&E are as follows:

FUTURE MINIMUM PAYMENTS – PURCHASED-POWER CONTRACTS	
<i>(Dollars in millions)</i>	
2020	\$ 233
2021	229
2022	233
2023	194
2024	166
Thereafter	904
Total minimum payments⁽¹⁾	\$ 1,959

⁽¹⁾ Excludes purchase agreements accounted for as finance leases.

Payments on these contracts represent capacity charges and minimum energy and transmission purchases that exceed the minimum commitment. SDG&E is required to pay additional amounts for actual purchases of energy that exceed the minimum energy commitments. Total payments under purchased-power contracts for Sempra Energy Consolidated and SDG&E were \$744 million in 2019, \$712 million in 2018 and \$781 million in 2017.

Construction and Development Projects

Sempra Energy Consolidated has various capital projects in progress in the U.S. and Mexico. Our total contractual commitments at December 31, 2019 under these projects are approximately \$1,212 million, requiring future payments of \$990 million in 2020, \$56 million in 2021, \$33 million in 2022, \$18 million in 2023, \$14 million in 2024 and \$101 million thereafter. The following is a summary by segment of contractual commitments and contingencies related to such projects.

SDG&E

At December 31, 2019, SDG&E has commitments to make future payments of \$57 million for construction projects that include:

- \$49 million for infrastructure improvements for electric and natural gas transmission and distribution systems; and
- \$8 million related to spent fuel management at SONGS.

SDG&E expects future payments under these contractual commitments to be \$20 million in 2020, \$19 million in 2021, \$14 million in 2022, \$1 million in 2023, \$1 million in 2024 and \$2 million thereafter.

Sempra Mexico

At December 31, 2019, Sempra Mexico has commitments to make future payments of \$976 million for construction projects that include:

- \$567 million for liquid fuels terminals;
- \$283 million for natural gas pipelines and ongoing maintenance services; and
- \$126 million for renewables projects.

Sempra Mexico expects future payments under these contractual commitments to be \$791 million in 2020, \$37 million in 2021, \$19 million in 2022, \$17 million in 2023, \$13 million in 2024 and \$99 million thereafter.

Sempra LNG

At December 31, 2019, Sempra LNG has commitments to make future payments of \$179 million primarily for LNG liquefaction development costs and natural gas transportation projects. The future payments under these contractual commitments are all expected to be made in 2020.

OTHER COMMITMENTS

SDG&E

We discuss nuclear insurance and nuclear fuel disposal related to SONGS in Note 15.

In connection with the completion of the Sunrise Powerlink project in 2012, the CPUC required that SDG&E establish a fire mitigation fund to minimize the risk of fire as well as reduce the potential wildfire impact on residences and structures near the Sunrise Powerlink. The future payments for these contractual commitments, for which a liability has been recorded, are expected to be \$4 million per year in 2020 through 2024 and \$282 million thereafter, subject to escalation of 2% per year, for a remaining 50-year period. At December 31, 2019, the present value of these future payments of \$121 million has been recorded as a regulatory asset as the amounts represent a cost that is expected to be recovered from customers in the future.

Sempra LNG

Additional consideration for a 2006 comprehensive legal settlement with the State of California to resolve the Continental Forge litigation included an agreement that, for a period of 18 years beginning in 2011, Sempra LNG would sell to the California Utilities, subject to annual CPUC approval, up to 500 MMcf per day of regasified LNG from Sempra Mexico's ECA LNG Regasification facility that is not delivered or sold in Mexico at the price indexed to the California border minus \$0.02 per MMBtu. There are no specified minimums required, and to date, Sempra LNG has not been required to deliver any natural gas pursuant to this agreement.

ENVIRONMENTAL ISSUES

Our operations are subject to federal, state and local environmental laws. We also are subject to regulations related to hazardous wastes, air and water quality, land use, solid waste disposal and the protection of wildlife. These laws and regulations require that we investigate and correct the effects of the release or disposal of materials at sites associated with our past and our present operations. These sites include those at which we have been identified as a PRP under the federal Superfund laws and similar state laws.

In addition, we are required to obtain numerous governmental permits, licenses and other approvals to construct facilities and operate our businesses. The related costs of environmental monitoring, pollution control equipment, cleanup costs, and emissions fees are significant. Increasing national and international concerns regarding global warming and mercury, carbon dioxide, nitrogen oxide and sulfur dioxide emissions could result in requirements for additional pollution control equipment or significant emissions fees or taxes that could adversely affect Sempra LNG and Sempra Mexico. The California Utilities' costs to operate their facilities in compliance with these laws and regulations generally have been recovered in customer rates.

We discuss environmental matters related to the natural gas leak at SoCalGas' Aliso Canyon natural gas storage facility above in "Legal Proceedings – SoCalGas – Aliso Canyon Natural Gas Storage Facility Gas Leak."

Other Environmental Issues

We generally capitalize the significant costs we incur to mitigate or prevent future environmental contamination or extend the life, increase the capacity, or improve the safety or efficiency of property used in current operations. The following table shows our capital expenditures (including construction work in progress) in order to comply with environmental laws and regulations:

CAPITAL EXPENDITURES FOR ENVIRONMENTAL ISSUES

(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Sempra Energy Consolidated	\$ 80	\$ 100	\$ 91
SDG&E	39	38	46
SoCalGas	41	62	45

We have not identified any significant environmental issues outside the U.S.

At the California Utilities, costs that relate to current operations or an existing condition caused by past operations are generally recorded as a regulatory asset due to the probability that these costs will be recovered in rates.

The environmental issues currently facing us, except for those related to the Aliso Canyon natural gas storage facility leak as we discuss above or resolved during the last three years, include (1) investigation and remediation of the California Utilities' manufactured-gas sites, (2) cleanup of third-party waste-disposal sites used by the California Utilities at which we have been identified as a PRP and (3) mitigation of damage to the marine environment caused by the cooling-water discharge from SONGS.

The table below shows the status at December 31, 2019 of the California Utilities' manufactured-gas sites and the third-party waste-disposal sites for which we have been identified as a PRP:

STATUS OF ENVIRONMENTAL SITES

	# Sites complete ⁽¹⁾	# Sites in process
SDG&E:		
Manufactured-gas sites	3	—
Third-party waste-disposal sites	2	1
SoCalGas:		
Manufactured-gas sites	39	3
Third-party waste-disposal sites	5	2

⁽¹⁾ There may be ongoing compliance obligations for completed sites, such as regular inspections, adherence to land use covenants and water quality monitoring.

We record the present value of environmental liabilities when our liability is probable and the costs can be reasonably estimated. In many cases, however, investigations are not yet at a stage where we can determine whether we are liable or, if the liability is probable, to reasonably estimate the amount or range of amounts of the costs. Estimates of our liability are further subject to uncertainties such as the nature and extent of site contamination, evolving cleanup standards and imprecise engineering evaluations. We review our accruals periodically and, as investigations and cleanups proceed, we make adjustments as necessary.

The following table shows our accrued liabilities for environmental matters at December 31, 2019. Of the total liability, \$15 million is recorded on a discounted basis, with discount rates ranging from 1.5% to 3%.

ACCRUED LIABILITIES FOR ENVIRONMENTAL MATTERS

(Dollars in millions)

	Manufactured- gas sites	Waste disposal sites (PRP) ⁽¹⁾	Other hazardous waste sites	Total ⁽²⁾
SDG&E ⁽³⁾	\$ —	\$ 2	\$ 3	\$ 5
SoCalGas ⁽⁴⁾	43	2	—	45
Other	—	1	—	1
Total Sempra Energy	\$ 43	\$ 5	\$ 3	\$ 51

⁽¹⁾ Sites for which we have been identified as a PRP.

⁽²⁾ Includes \$7 million, \$1 million and \$6 million classified as current liabilities, and \$44 million, \$4 million and \$39 million classified as noncurrent liabilities on Sempra Energy's, SDG&E's and SoCalGas' Consolidated Balance Sheets, respectively.

⁽³⁾ Does not include SDG&E's liability for SONGS marine environment mitigation.

⁽⁴⁾ Does not include SoCalGas' liability for environmental matters for the Leak at the Aliso Canyon natural gas storage facility. We discuss matters related to the Leak above in "Legal Proceedings – SoCalGas – Aliso Canyon Natural Gas Storage Facility Gas Leak."

In connection with the issuance of operating permits, SDG&E and the other owners of SONGS previously reached an agreement with the CCC to mitigate the damage to the marine environment caused by the cooling-water discharge from SONGS during its operation. SONGS' early retirement, described in Note 15, does not reduce SDG&E's mitigation obligation. SDG&E's share of the estimated mitigation costs is \$85 million, of which \$46 million has been incurred through December 31, 2019 and \$39 million is accrued for remaining costs through 2053, which is recoverable in rates and included in noncurrent Regulatory Assets on Sempra Energy's and SDG&E's Consolidated Balance Sheets. Work on the artificial reef that was dedicated in 2008 continues.

The CCC has stated that it now requires an expansion of the reef because the existing reef may be too small to consistently meet the performance standards. In 2018, the CPUC approved a joint motion filed by SDG&E, Edison, TURN and Cal PA requesting approval of a settlement agreement that amends the rate recovery application and allows costs to be recorded to a memorandum account until rate recovery is approved. In August 2019, Edison and SDG&E submitted an updated cost forecast to the CPUC for rate recovery approval when the project's coastal development permit was approved. The CPUC approved the updated cost forecast in December 2019, with rates going into effect on January 1, 2020. SDG&E's share of the reef expansion costs currently forecasted through September 2020 is approximately \$4 million, of which \$3 million has been incurred through December 31, 2019 and \$1 million is payable for remaining costs through September 2020.

We expect future payments related to our environmental liabilities on an undiscounted basis to be \$9 million in 2020, \$32 million in 2021, \$2 million in 2022, \$2 million in 2023, \$1 million in 2024 and \$50 million thereafter.

NOTE 17. SEGMENT INFORMATION

We have five separately managed reportable segments, as follows:

- SDG&E provides electric service to San Diego and southern Orange counties and natural gas service to San Diego County.
- SoCalGas is a natural gas distribution utility, serving customers throughout most of Southern California and part of central California.
- Sempra Texas Utilities holds our investment in Oncor Holdings, which, at December 31, 2019, owns an 80.25% interest in Oncor, a regulated electric transmission and distribution utility serving customers in the north-central, eastern and western and panhandle regions of Texas, and our indirect, 50% interest in Sharyland Holdings, which owns a regulated electric transmission and distribution utility serving customers near the Texas-Mexico border. As we discuss in Note 5, we acquired our investment in Oncor Holdings in March 2018 and Sharyland Holdings in May 2019.
- Sempra Mexico develops, owns and operates, or holds interests in, natural gas, electric, LNG, LPG, ethane and liquid fuels infrastructure, and has marketing operations for the purchase of LNG and the purchase and sale of natural gas in Mexico.
- Sempra LNG (previously known as Sempra LNG & Midstream) develops projects for the export of LNG, holds an interest in a facility for the export of LNG, owns and operates natural gas pipelines, and buys, sells and transports natural gas through its

marketing operations, all within the U.S. and Mexico. In February 2019, we completed the sale of our natural gas storage assets at Mississippi Hub and Bay Gas. In December 2018, Sempra Renewables completed the sale of all its operating solar assets, solar and battery storage development projects and one wind generation facility. In April 2019, Sempra Renewables completed the sale of its remaining wind assets and investments. Upon completion of this sale, remaining nominal business activities at Sempra Renewables were subsumed into Parent and other and the Sempra Renewables segment ceased to exist. The tables below include amounts from Sempra Renewables up until cessation of the segment.

As we discuss in Note 5, the financial information related to our businesses that constituted the Sempra South American Utilities segment has been reclassified to discontinued operations for all periods presented. The information in the tables below excludes amounts from discontinued operations unless otherwise noted.

We evaluate each segment's performance based on its contribution to Sempra Energy's reported earnings and cash flows. The California Utilities operate in essentially separate service territories, under separate regulatory frameworks and rate structures set by the CPUC and the FERC. We describe the accounting policies of all of our segments in Note 1.

The cost of common services shared by the business segments is assigned directly or allocated based on various cost factors, depending on the nature of the service provided. Interest income and expense is recorded on intercompany loans. The loan balances and related interest are eliminated in consolidation.

The following tables show selected information by segment from our Consolidated Statements of Operations and Consolidated Balance Sheets. We provide information about our equity method investments by segment in Note 6. Amounts labeled as "All other" in the following tables consist primarily of activities of parent organizations and include certain nominal amounts from our South American businesses that did not qualify for treatment as discontinued operations.

SEGMENT INFORMATION*(Dollars in millions)*

	Years ended December 31,		
	2019	2018	2017
REVENUES			
SDG&E	\$ 4,925	\$ 4,568	\$ 4,476
SoCalGas	4,525	3,962	3,785
Sempra Mexico	1,375	1,376	1,196
Sempra Renewables	10	124	94
Sempra LNG	410	472	540
All other	3	—	—
Adjustments and eliminations	(3)	(3)	(1)
Intersegment revenues ⁽¹⁾	(416)	(397)	(450)
Total	\$ 10,829	\$ 10,102	\$ 9,640
INTEREST EXPENSE			
SDG&E ⁽²⁾	\$ 411	\$ 221	\$ 203
SoCalGas	141	115	102
Sempra Mexico	119	120	97
Sempra Renewables	3	19	15
Sempra LNG	35	21	39
All other	450	496	284
Intercompany eliminations	(82)	(106)	(118)
Total	\$ 1,077	\$ 886	\$ 622
INTEREST INCOME			
SDG&E	\$ 4	\$ 4	\$ —
SoCalGas	2	2	1
Sempra Mexico	78	65	23
Sempra Renewables	11	12	7
Sempra LNG	61	49	56
All other	4	14	—
Intercompany eliminations	(73)	(61)	(63)
Total	\$ 87	\$ 85	\$ 24
DEPRECIATION AND AMORTIZATION			
SDG&E	\$ 760	\$ 688	\$ 670
SoCalGas	602	556	515
Sempra Mexico	183	175	156
Sempra Renewables	—	27	38
Sempra LNG	10	26	42
All other	14	19	15
Total	\$ 1,569	\$ 1,491	\$ 1,436
INCOME TAX EXPENSE (BENEFIT)			
SDG&E	\$ 171	\$ 173	\$ 155
SoCalGas	120	92	160
Sempra Mexico	227	185	227
Sempra Renewables	4	71	(226)
Sempra LNG	(5)	(435)	(119)
All other	(202)	(135)	741
Total	\$ 315	\$ (49)	\$ 938

SEGMENT INFORMATION (CONTINUED)*(Dollars in millions)*

	Years ended December 31 or at December 31,		
	2019	2018	2017
EARNINGS (LOSSES) ATTRIBUTABLE TO COMMON SHARES			
SDG&E	\$ 767	\$ 669	\$ 407
SoCalGas	641	400	396
Sempra Texas Utilities	528	371	—
Sempra Mexico	253	237	169
Sempra Renewables	59	328	252
Sempra LNG	(6)	(617)	150
Discontinued operations	328	156	(58)
All other	(515)	(620)	(1,060)
Total	\$ 2,055	\$ 924	\$ 256
EXPENDITURES FOR PROPERTY, PLANT & EQUIPMENT			
SDG&E	\$ 1,522	\$ 1,542	\$ 1,555
SoCalGas	1,439	1,538	1,367
Sempra Mexico	624	368	248
Sempra Renewables	2	51	497
Sempra LNG	112	31	20
All other	9	14	18
Total	\$ 3,708	\$ 3,544	\$ 3,705
ASSETS			
SDG&E	\$ 20,560	\$ 19,225	\$ 17,844
SoCalGas	17,077	15,389	14,159
Sempra Texas Utilities	11,619	9,652	—
Sempra Mexico	9,938	9,165	8,554
Sempra Renewables	—	2,549	2,898
Sempra LNG	3,901	4,060	4,872
Discontinued operations	3,958	3,718	3,561
All other	749	1,070	1,351
Intersegment receivables	(2,137)	(4,190)	(2,785)
Total	\$ 65,665	\$ 60,638	\$ 50,454
GEOGRAPHIC INFORMATION			
Long-lived assets ⁽³⁾ :			
United States	\$ 43,719	\$ 40,611	\$ 31,487
Mexico	6,355	5,800	5,363
Total	\$ 50,074	\$ 46,411	\$ 36,850
Revenues ⁽⁴⁾ :			
United States	\$ 9,574	\$ 8,840	\$ 8,547
Mexico	1,255	1,262	1,093
Total	\$ 10,829	\$ 10,102	\$ 9,640

⁽¹⁾ Revenues for reportable segments include intersegment revenues of \$5 million, \$69 million, \$120 million and \$222 million for 2019; \$4 million, \$64 million, \$114 million and \$215 million for 2018; and \$7 million, \$74 million, \$103 million and \$266 million for 2017 for SDG&E, SoCalGas, Sempra Mexico and Sempra LNG, respectively.

⁽²⁾ As we discuss in Note 2, in accordance with adoption of the lease standard on January 1, 2019, on a prospective basis, a significant portion of finance lease costs for PPAs that have historically been presented in Cost of Electric Fuel and Purchased Power are now presented in Interest Expense.

⁽³⁾ Includes net PP&E and investments.

⁽⁴⁾ Amounts are based on where the revenue originated, after intercompany eliminations.

NOTE 18. QUARTERLY FINANCIAL DATA (UNAUDITED)

We provide quarterly financial information for Sempra Energy Consolidated, SDG&E and SoCalGas below:

SEMPRA ENERGY*(In millions, except per share amounts)*

	Quarters ended			
	March 31	June 30	September 30	December 31
2019:				
Revenues	\$ 2,898	\$ 2,230	\$ 2,758	\$ 2,943
Expenses and other income	\$ 2,397	\$ 1,944	\$ 2,310	\$ 2,444
Income from continuing operations, net of income tax	\$ 560	\$ 357	\$ 653	\$ 429
(Loss) income from discontinued operations, net of income tax	(42)	78	256	71
Net income	\$ 518	\$ 435	\$ 909	\$ 500
Earnings attributable to common shares	\$ 441	\$ 354	\$ 813	\$ 447
Basic EPS ⁽¹⁾ :				
Earnings from continuing operations	\$ 1.79	\$ 1.03	\$ 2.04	\$ 1.36
(Losses) earnings from discontinued operations	\$ (0.19)	\$ 0.26	\$ 0.89	\$ 0.21
Earnings	\$ 1.60	\$ 1.29	\$ 2.93	\$ 1.57
Weighted-average common shares outstanding	274.7	275.0	277.4	284.6
Diluted EPS ⁽¹⁾ :				
Earnings from continuing operations ⁽²⁾	\$ 1.78	\$ 1.01	\$ 2.00	\$ 1.34
(Losses) earnings from discontinued operations	\$ (0.19)	\$ 0.25	\$ 0.84	\$ 0.21
Earnings ⁽²⁾	\$ 1.59	\$ 1.26	\$ 2.84	\$ 1.55
Weighted-average common shares outstanding	277.2	279.6	295.8	288.8
2018:				
Revenues	\$ 2,536	\$ 2,175	\$ 2,565	\$ 2,826
Expenses and other income	\$ 1,943	\$ 3,358	\$ 2,220	\$ 1,867
Income (loss) from continuing operations, net of income tax	\$ 330	\$ (585)	\$ 280	\$ 913
Income from discontinued operations, net of income tax	28	55	54	51
Net income (loss)	\$ 358	\$ (530)	\$ 334	\$ 964
Earnings (losses) attributable to common shares	\$ 347	\$ (561)	\$ 274	\$ 864
Basic EPS ⁽¹⁾ :				
Earnings (losses) from continuing operations	\$ 1.26	\$ (2.29)	\$ 0.83	\$ 3.00
Earnings from discontinued operations	\$ 0.08	\$ 0.18	\$ 0.17	\$ 0.15
Earnings (losses)	\$ 1.34	\$ (2.11)	\$ 1.00	\$ 3.15
Weighted-average common shares outstanding	257.9	265.8	273.9	274.3
Diluted EPS ⁽¹⁾⁽³⁾ :				
Earnings (losses) from continuing operations ⁽²⁾	\$ 1.25	\$ (2.29)	\$ 0.82	\$ 2.89
Earnings from discontinued operations	\$ 0.08	\$ 0.18	\$ 0.17	\$ 0.14
Earnings (losses) ⁽²⁾	\$ 1.33	\$ (2.11)	\$ 0.99	\$ 3.03
Weighted-average common shares outstanding	259.5	265.8	275.9	296.4

⁽¹⁾ EPS is computed independently for each of the quarters and therefore may not sum to the total for the year.

⁽²⁾ In the quarters ended September 30, 2019 and December 31, 2018, due to the dilutive effect of certain mandatory convertible preferred stock, the numerator used to calculate diluted EPS included an add-back of related mandatory convertible preferred stock dividends declared in those quarters.

⁽³⁾ In the quarter ended June 30, 2018, the total weighted-average potentially dilutive securities were not included in the computation of losses per common share since to do so would have decreased the loss per share.

In April 2019, Sempra Renewables completed the sale of its remaining wind assets and investments and recognized a pretax gain on sale of \$61 million (\$45 million after tax). We discuss the sale and related gain in Note 5.

In June 2018, we recorded impairment charges totaling \$1.5 billion (\$900 million after tax and NCI), which included \$1.3 billion (\$755 million after tax and NCI) at Sempra LNG and \$200 million (\$145 million after tax) at Sempra Renewables. In December

2018, we reduced the impairment charge at Sempra LNG by \$183 million (\$126 million after tax and NCI). We discuss the impairments in Notes 5 and 12. In December 2018, we completed the sale of our U.S. operating solar assets, solar and battery storage development projects, as well as an interest in one wind facility, and recognized a pretax gain on sale of \$513 million (\$367 million after tax). We discuss the sale and related gain in Note 5.

In September 2018, we impaired our remaining equity method investment in RBS Sempra Commodities by recording a charge of \$65 million in Equity Earnings. We discuss matters related to RBS Sempra Commodities further in Note 16.

SDG&E

(Dollars in millions)

	Quarters ended			
	March 31	June 30	September 30	December 31
2019:				
Operating revenues	\$ 1,145	\$ 1,094	\$ 1,427	\$ 1,259
Operating expenses	883	831	1,004	894
Operating income	\$ 262	\$ 263	\$ 423	\$ 365
Net income	\$ 177	\$ 146	\$ 266	\$ 185
Earnings attributable to noncontrolling interest	(1)	(3)	(3)	—
Earnings attributable to common shares	\$ 176	\$ 143	\$ 263	\$ 185
2018:				
Operating revenues	\$ 1,055	\$ 1,051	\$ 1,299	\$ 1,163
Operating expenses	807	836	999	916
Operating income	\$ 248	\$ 215	\$ 300	\$ 247
Net income	\$ 169	\$ 146	\$ 216	\$ 145
Losses (earnings) attributable to noncontrolling interest	1	—	(11)	3
Earnings attributable to common shares	\$ 170	\$ 146	\$ 205	\$ 148

SOCALGAS

(Dollars in millions)

	Quarters ended			
	March 31	June 30	September 30	December 31
2019:				
Operating revenues	\$ 1,361	\$ 806	\$ 975	\$ 1,383
Operating expenses	1,060	747	762	1,000
Operating income	\$ 301	\$ 59	\$ 213	\$ 383
Net income	\$ 264	\$ 31	\$ 143	\$ 204
Dividends on preferred stock	—	(1)	—	—
Earnings attributable to common shares	\$ 264	\$ 30	\$ 143	\$ 204
2018:				
Operating revenues	\$ 1,126	\$ 772	\$ 802	\$ 1,262
Operating expenses	848	703	797	1,023
Operating income	\$ 278	\$ 69	\$ 5	\$ 239
Net income (loss)	\$ 225	\$ 34	\$ (14)	\$ 156
Dividends on preferred stock	—	(1)	—	—
Earnings (losses) attributable to common shares	\$ 225	\$ 33	\$ (14)	\$ 156

SoCalGas recognizes annual authorized revenue for core natural gas customers using seasonal factors established in the Triennial Cost Allocation Proceeding. Accordingly, a significant portion of SoCalGas' annual earnings are recognized in the first and fourth quarters each year.

SCHEDULE I – SEMPRA ENERGY
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SEMPRA ENERGY**CONDENSED STATEMENTS OF OPERATIONS***(Dollars in millions, except per share amounts; shares in thousands)*

	Years ended December 31,		
	2019	2018	2017
Interest income	\$ 3	\$ 14	\$ —
Interest expense	(521)	(495)	(293)
Operating expenses	(124)	(82)	(80)
Other income (expense), net	59	(16)	100
Income tax benefit	163	154	33
Loss before equity in earnings of subsidiaries	(420)	(425)	(240)
Equity in earnings of subsidiaries, net of income taxes	2,617	1,474	496
Net income	2,197	1,049	256
Mandatory convertible preferred stock dividends	(142)	(125)	—
Earnings	\$ 2,055	\$ 924	\$ 256
Basic EPS:			
Earnings	\$ 7.40	\$ 3.45	\$ 1.02
Weighted-average common shares outstanding	277,904	268,072	251,545
Diluted EPS:			
Earnings	\$ 7.29	\$ 3.42	\$ 1.01
Weighted-average common shares outstanding	282,033	269,852	252,300

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY**CONDENSED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)***(Dollars in millions)*

	Years ended December 31, 2019, 2018 and 2017		
	Pretax amount	Income tax benefit (expense)	Net-of-tax amount
2019:			
Net income	\$ 2,034	\$ 163	\$ 2,197
Other comprehensive income (loss):			
Foreign currency translation adjustments	(43)	—	(43)
Financial instruments	(161)	53	(108)
Pension and other postretirement benefits	25	(7)	18
Total other comprehensive loss	(179)	46	(133)
Comprehensive income	\$ 1,855	\$ 209	\$ 2,064
2018:			
Net income	\$ 895	\$ 154	\$ 1,049
Other comprehensive income (loss):			
Foreign currency translation adjustments	(144)	—	(144)
Financial instruments	64	(21)	43
Pension and other postretirement benefits	(38)	4	(34)
Total other comprehensive loss	(118)	(17)	(135)
Comprehensive income	\$ 777	\$ 137	\$ 914
2017:			
Net income	\$ 223	\$ 33	\$ 256
Other comprehensive income (loss):			
Foreign currency translation adjustments	107	—	107
Financial instruments	2	1	3
Pension and other postretirement benefits	20	(8)	12
Total other comprehensive income	129	(7)	122
Comprehensive income	\$ 352	\$ 26	\$ 378

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY
CONDENSED BALANCE SHEETS
(Dollars in millions)

	December 31, 2019	December 31, 2018
Assets:		
Cash and cash equivalents	\$ 6	\$ 14
Due from affiliates	98	93
Income taxes receivable, net	—	397
Other current assets	34	9
Total current assets	138	513
Investments in subsidiaries	32,604	28,778
Due from affiliates	3	3
Deferred income taxes	1,766	1,554
Other long-term assets	682	572
Total assets	\$ 35,193	\$ 31,420
Liabilities and shareholders' equity:		
Current portion of long-term debt	\$ 1,399	\$ 1,498
Due to affiliates	369	287
Income taxes payable, net	274	—
Other current liabilities	561	527
Total current liabilities	2,603	2,312
Long-term debt	8,856	9,647
Due to affiliates	3,138	1,812
Other long-term liabilities	667	511
Commitments and contingencies (Note 4)		
Shareholders' equity	19,929	17,138
Total liabilities and shareholders' equity	\$ 35,193	\$ 31,420

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY
CONDENSED STATEMENTS OF CASH FLOWS
(Dollars in millions)

	Years ended December 31,		
	2019	2018	2017
Net cash provided by operating activities	\$ 294	\$ 213	\$ 89
Expenditures for property, plant and equipment	(8)	(11)	(11)
Expenditures for acquisition	—	(329)	—
Capital contributions to investees	(1,528)	(9,457)	—
Increase in loans to affiliates, net	—	(1)	—
Expenditures for Merger-related costs	—	—	(12)
Other	4	—	—
Net cash used in investing activities	(1,532)	(9,798)	(23)
Common stock dividends paid	(993)	(877)	(755)
Preferred dividends paid	(142)	(89)	—
Issuances of mandatory convertible preferred stock, net	—	2,258	—
Issuances of common stock, net	1,830	2,272	47
Repurchases of common stock	(26)	(21)	(15)
Issuances of long-term debt	758	4,969	1,595
Payments on long-term debt	(1,500)	(500)	(600)
Increase (decrease) in loans from affiliates, net	1,328	1,520	(239)
Debt issuance costs	(25)	(37)	(7)
Net cash provided by financing activities	1,230	9,495	26
(Decrease) increase in cash and cash equivalents	(8)	(90)	92
Cash and cash equivalents, January 1	14	104	12
Cash and cash equivalents, December 31	\$ 6	\$ 14	\$ 104
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Accrued Merger-related transaction costs	\$ —	\$ —	\$ 31
Preferred dividends declared but not paid	36	36	—
Common dividends issued in stock	55	54	53
Common dividends declared but not paid	283	245	207

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY

NOTES TO CONDENSED FINANCIAL INFORMATION OF PARENT

NOTE 1. BASIS OF PRESENTATION

The condensed financial information of Sempra Energy has been prepared in accordance with SEC Regulation S-X Rule 5-04 and Rule 12-04. We apply the same accounting policies as in the financial statements of Sempra Energy Consolidated, except that Sempra Energy accounts for the earnings of its subsidiaries under the equity method in this unconsolidated financial information.

Other Income, Net, on the Condensed Statements of Operations includes:

- \$61 million, \$(6) million and \$56 million of gains (losses) on dedicated assets in support of our executive retirement and deferred compensation plans in 2019, 2018 and 2017, respectively;
- \$3 million and \$50 million net gains primarily from the settlement of foreign currency derivatives to hedge Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova in 2018 and 2017, respectively; and
- \$15 million losses in 2019 from foreign currency derivatives used to hedge exposure of fluctuations in the Peruvian Sol related to the sale of our operations in Peru.

Sempra Energy received cash dividends from its consolidated subsidiaries totaling \$150 million, \$300 million and \$450 million in 2019, 2018 and 2017, respectively.

Additional information on Sempra Energy's foreign currency derivatives is provided in Note 11 of the Notes to Consolidated Financial Statements.

NOTE 2. NEW ACCOUNTING STANDARDS

We describe below and in Note 2 of the Notes to Consolidated Financial Statements recent pronouncements that have had a significant effect on Sempra Energy's financial condition, results of operations, cash flows or disclosures.

ASU 2016-02, "Leases," ASU 2018-10, "Codification Improvements to Topic 842, Leases" and ASU 2018-11, "Leases (Topic 842): Targeted Improvements" (collectively referred to as the "lease standard"): We adopted the lease standard on January 1, 2019 using the optional modified retrospective transition method to apply the new guidance as of January 1, 2019, rather than as of the earliest period presented. The adoption of the lease standard had a material impact on our balance sheet at January 1, 2019 due to the initial recognition of ROU assets and lease liabilities for operating leases.

The following table shows the increases (decreases) on our balance sheet at January 1, 2019 from adoption of the lease standard.

IMPACT FROM ADOPTION OF THE LEASE STANDARD

(Dollars in millions)

Right-of-use assets – operating leases ⁽¹⁾	\$	191
Deferred income tax assets		(3)
Property, plant and equipment, net ⁽¹⁾		(147)
Other current liabilities		3
Long-term debt		(138)
Other long-term liabilities		159
Retained earnings ⁽²⁾		17

⁽¹⁾ Included in Other Long-Term Assets.

⁽²⁾ Included in Shareholders' Equity.

As a result of the adoption of the lease standard, we derecognized the asset and liability associated with our corporate headquarters building in accordance with the transition provisions for build-to-suit arrangements. On a prospective basis, we will account for the corporate headquarters building lease as an operating lease. The initial impact is included in the above table.

ASU 2018-02, "Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income": We adopted ASU 2018-02 on January 1, 2019 and reclassified the income tax effects of the TCJA from AOCI to retained earnings. The impact from adoption of ASU 2018-02 on January 1, 2019 was an increase of \$14 million to beginning Retained Earnings and Accumulated Other Comprehensive Loss.

ASU 2019-12, "Simplifying the Accounting for Income Taxes": ASU 2019-12 simplifies certain areas of accounting for income taxes. In addition to other changes, this standard amends ASC 740, "Income Taxes," as follows:

- removes the exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items, including discontinued operations or other comprehensive income;
- simplifies the recognition of deferred taxes related to basis differences as a result of ownership changes in investments;
- specifies an entity is not required to allocate the consolidated amount of current and deferred tax expense to a legal entity that is not subject to tax in its separate financial statements; and
- requires an entity to reflect the effect of an enacted change in tax laws or rates in the annual ETR computation in the interim period that includes the enactment date.

For public entities, ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods therein, with early adoption permitted. The transition method related to the amendments made by ASU 2019-12 vary based on the nature of the change. We are currently evaluating our planned adoption date and the effect of the standard on our ongoing financial reporting.

NOTE 3. LONG-TERM DEBT

The following table shows the detail and maturities of long-term debt outstanding:

LONG-TERM DEBT (Dollars in millions)	December 31,	
	2019	2018
9.8% Notes February 15, 2019	\$ —	\$ 500
Notes at variable rates (2.69% at December 31, 2018) July 15, 2019	—	500
1.625% Notes October 7, 2019	—	500
2.4% Notes February 1, 2020	500	500
2.4% Notes March 15, 2020	500	500
2.85% Notes November 15, 2020	400	400
Notes at variable rates (2.50% at December 31, 2019) January 15, 2021 ⁽¹⁾	700	700
Notes at variable rates (3.069% after floating-to-fixed rate swaps effective 2019) March 15, 2021	850	850
2.875% Notes October 1, 2022	500	500
2.9% Notes February 1, 2023	500	500
4.05% Notes December 1, 2023	500	500
3.55% Notes June 15, 2024	500	500
3.75% Notes November 15, 2025	350	350
3.25% Notes June 15, 2027	750	750
3.4% Notes February 1, 2028	1,000	1,000
3.8% Notes February 1, 2038	1,000	1,000
6% Notes October 15, 2039	750	750
4% Notes February 1, 2048	800	800
5.75% Junior Subordinated Notes July 1, 2079 ⁽¹⁾	758	—
Build-to-suit arrangement ⁽²⁾	—	138
	10,358	11,238
Current portion of long-term debt	(1,399)	(1,498)
Unamortized discount on long-term debt	(35)	(38)
Unamortized debt issuance costs	(68)	(55)
Total long-term debt	\$ 8,856	\$ 9,647

⁽¹⁾ Callable long-term debt not subject to make-whole provisions.

⁽²⁾ This arrangement is now accounted for as an operating lease liability upon adoption of the lease standard on January 1, 2019. See Note 2.

Maturities of long-term debt at December 31, 2019 are \$1.4 billion in 2020, \$1.6 billion in 2021, \$500 million in 2022, \$1.0 billion in 2023, \$500 million in 2024 and \$5.4 billion thereafter.

Additional information on Sempra Energy's long-term debt is provided in Note 7 of the Notes to Consolidated Financial Statements.

NOTE 4. COMMITMENTS AND CONTINGENCIES

Sempra Energy has an operating lease commitment related to its corporate headquarters building of approximately \$267 million. Sempra Energy expects payments for its operating lease to be \$10 million in 2020, \$11 million in 2021, \$11 million in 2022, \$11 million in 2023, \$12 million in 2024 and \$212 million thereafter.

For other contingencies and guarantees related to Sempra Energy, refer to Notes 6, 7 and 16 of the Notes to Consolidated Financial Statements.