UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Fiscal Year ended December 31, 2018.

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the Transition period from to .

Commission File Number: 333-203369

Clearway Energy LLC

(Exact name of registrant as specified in its charter)

Delaware	**32-0407370**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
300 Carnegie Center, Suite 300, Princeton, New Jersey	**08540**
(Address of principal executive offices)	*(Zip Code)*

(609) 608-1525
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:
None
Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes x No o

Indicate by check mark whether the registrant (1) has filed all reports to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. (Note: The registrant is a voluntary filer and not subject to the filing requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934. Although not subject to these filing requirements, the registrant has filed all reports that would have been required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months had the registrant been subject to such requirements.) Yes o No o

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o Accelerated filer o Non-accelerated filer x Smaller reporting company o Emerging growth company o

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. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No x

Clearway Energy LLC's outstanding equity interests are held by Clearway Energy, Inc. and Clearway Energy Group LLC and there are no equity interests held by non-affiliates.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date. There is no public market for the registrant's outstanding units.

Class	Outstanding at January 31, 2019
Class A Units	34,599,645
Class B Units	42,738,750
Class C Units	73,323,463
Class D Units	42,738,750

Documents Incorporated by Reference:
None.

NOTE: WHEREAS CLEARWAY ENERGY LLC MEETS THE CONDITIONS SET FORTH IN GENERAL INSTRUCTION I(1)(a) AND (b) OF FORM 10-K, THIS FORM 10-K IS BEING FILED WITH THE REDUCED DISCLOSURE FORMAT PURSUANT TO GENERAL INSTRUCTION I(2).

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GLOSSARY OF TERMS

When the following terms and abbreviations appear in the text of this report, they have the meanings indicated below:

Term	Meaning
2019 Convertible Notes	Clearway Energy, Inc.'s $345 million aggregate principal amount of 3.50% Convertible Notes due 2019
2020 Convertible Notes	Clearway Energy, Inc.'s $287.5 million aggregate principal amount of 3.25% Convertible Notes due 2020
2024 Senior Notes	$500 million aggregate principal amount of 5.375% unsecured senior notes due 2024, issued by Clearway Energy Operating LLC
2025 Senior Notes	$600 million aggregate principal amount of 5.750% unsecured senior notes due 2025, issued by Clearway Energy Operating LLC
2026 Senior Notes	$350 million aggregate principal amount of 5.00% unsecured senior notes due 2026, issued by Clearway Energy Operating LLC
Adjusted EBITDA	Represents EBITDA adjusted for mark-to-market gains or losses, asset write offs and impairments; and factors which the Company does not consider indicative of future operating performance
Alta Wind Portfolio	Seven wind facilities that total 947 MW located in Tehachapi, California and a portfolio of associated land leases
AOCL	Accumulated Other Comprehensive Loss
ARO	Asset Retirement Obligation
ARRA	American Recovery and Reinvestment Act of 2009
ASC	The FASB Accounting Standards Codification, which the FASB established as the source of authoritative GAAP
ASU	Accounting Standards Updates – updates to the ASC
ATM Program	At-The-Market Equity Offering Program
August 2017 Drop Down Assets	The remaining 25% interest in Wind TE Holdco
Bankruptcy Code	Chapter 11 of Title 11 of the United States Code
Bankruptcy Court	U.S. Bankruptcy Court for the Northern District of California
Bridge Credit Agreement	364-Day Bridge Credit Agreement, entered into by and between Clearway Operating LLC, as borrower, and Clearway Energy LLC, as guarantor, on August 31, 2018
Buckthorn Solar Drop Down Asset	Buckthorn Renewables, LLC, which owns 100% of Buckthorn Solar Portfolio, LLC, which was acquired by Clearway Energy Operating LLC from NRG on March 30, 2018
CAA	Clean Air Act
CAFD	Cash Available for Distribution (CAFD) is Adjusted EBITDA plus cash distributions/return of investment from unconsolidated affiliates, cash receipts from notes receivable, cash distributions from noncontrolling interests, less cash distributions to noncontrolling interests, maintenance capital expenditures, pro-rata Adjusted EBITDA from unconsolidated affiliates, cash interest paid, income taxes paid, principal amortization of indebtedness, Walnut Creek investment payments, and changes in prepaid and accrued capacity payments
Carlsbad	The Carlsbad Energy Center, a 527 MW natural gas fired project located in Carlsbad, CA
CDFW	California Department of Fish and Wildlife
CEG	Clearway Energy Group LLC (formerly Zephyr Renewables LLC)
CEG Master Services Agreement	Master Services Agreements, entered into as of August 31, 2018, between the Company, Clearway Energy LLC, Clearway Energy Operating LLC, and CEG
CEG ROFO Agreement	Right of First Offer Agreement, entered into as of August 31, 2018, by and among Clearway Energy Group LLC and Clearway Energy, Inc., and solely for purposes of Section 2.4, GIP III Zephyr Acquisition Partners, L.P.
CfD	Contract for Differences
Clearway Energy Group LLC	The holder of the Company's Class B and Class D common shares and Clearway Energy LLC's Class B and Class D units
Clearway Energy Operating LLC	Formerly NRG Yield Operating LLC, the holder of the project assets that are owned by Clearway Energy LLC
COD	Commercial Operation Date

Company	Clearway Energy LLC, together with its consolidated subsidiaries
CVSR	California Valley Solar Ranch
CVSR Drop Down	The Company's acquisition from NRG of the remaining 51.05% interest of CVSR Holdco
CVSR Holdco	CVSR Holdco LLC, the indirect owner of CVSR
DGCL	Delaware General Corporation Law
DGPV Holdco 1	DGPV Holdco 1 LLC
DGPV Holdco 2	DGPV Holdco 2 LLC
DGPV Holdco 3	DGPV Holdco 3 LLC
Distributed Solar	Solar power projects, typically less than 20 MW in size, that primarily sell power produced to customers for usage on site, or are interconnected to sell power into the local distribution grid
Drop Down Assets	Collectively, assets under common control acquired by the Company from NRG from January 1, 2014 through the period ended August 31, 2018
Economic Gross Margin	Energy and capacity revenue, less cost of fuels
ECP	Energy Center Pittsburgh LLC, a subsidiary of the Company
EGU	Electric Utility Generating Unit
EPA	United States Environmental Protection Agency
EPC	Engineering, Procurement and Construction
ERCOT	Electric Reliability Council of Texas, the ISO and the regional reliability coordinator of the various electricity systems within Texas
EWG	Exempt Wholesale Generator
Exchange Act	The Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
GAAP	Accounting principles generally accepted in the U.S.
GenConn	GenConn Energy LLC
GHG	Greenhouse gas
GIM	Global Infrastructure Management, LLC
GIP	Collectively, Global Infrastructure Partners III-C Intermediate AIV 3, L.P., Global Infrastructure Partners III-A/B AIV 3, L.P., Global Infrastructure Partners III-C Intermediate AIV 2, L.P., Global Infrastructure Partners III-C2 Intermediate AIV, L.P. and GIP III Zephyr Friends & Family, LLC.
GIP Transaction	On August 31, 2018, NRG transferred its full ownership interest in the Company to Clearway Energy Group LLC and subsequently sold 100% of its interests in Clearway Energy Group LLC, which includes NRG's renewable energy development and operations platform, to an affiliate of GIP. GIP, NRG and the Company also entered into a consent and indemnity agreement in connection with the purchase and sale agreement, which was signed on February 6, 2018
HLBV	Hypothetical Liquidation at Book Value
IRS	Internal Revenue Service
ISO	Independent System Operator, also referred to as an RTO
ITC	Investment Tax Credit
KPPH	1,000 Pounds Per Hour
LIBOR	London Inter-Bank Offered Rate
March 2017 Drop Down Assets	(i) Agua Caliente Borrower 2 LLC, which owns a 16% interest (approximately 31% of NRG's 51% interest) in the Agua Caliente solar farm and (ii) NRG's 100% ownership in the Class A equity interests in the Utah Solar Portfolio (defined below), both acquired by Clearway Energy Operating LLC on March 27, 2017
MBTA	Migratory Bird Treaty Act
MMBtu	Million British Thermal Units

MW	Megawatt
MWh	Saleable megawatt hours, net of internal/parasitic load megawatt-hours
MWt	Megawatts Thermal Equivalent
NERC	North American Electric Reliability Corporation
Net Exposure	Counterparty credit exposure to Clearway Energy LLC, net of collateral
November 2015 Drop Down Assets	75% of the Class B interests of Wind TE Holdco, which owns a portfolio of 12 wind facilities totaling 814 net MW, which was acquired by Clearway Energy Operating LLC from NRG on November 3, 2015
November 2017 Drop Down Assets	38 MW portfolio of distributed and small utility-scale solar assets, primarily comprised of assets from NRG's Solar Power Partners (SPP) funds, in addition to other projects developed since the acquisition of SPP by NRG, which was acquired by Clearway Energy Operating LLC from NRG on November 1, 2017
NO_x	Nitrogen Oxides
NPNS	Normal Purchases and Normal Sales
NRG	NRG Energy, Inc.
NRG Power Marketing	NRG Power Marketing LLC
NRG ROFO Agreement	Third Amended and Restated Right of First Offer Agreement, entered into as of August 31, 2018, by and between NRG and the Company
NRG TSA	Transition Services Agreement entered into as of August 31, 2018 by and between NRG and the Company
OECD	The Organization for Economic Co-operation and Development
OCI/OCL	Other comprehensive income/loss
O&M	Operations and Maintenance
PG&E	Pacific Gas and Electric Company
PG&E Bankruptcy	On January 29, 2019, PG&E Corporation and Pacific Gas and Electric Company filed voluntary petitions for relief under the Bankruptcy Code in the U.S. Bankruptcy Court for the Northern District of California
PJM	PJM Interconnection, LLC
PPA	Power Purchase Agreement
PTC	Production Tax Credit
PUCT	Public Utility Commission of Texas
PUHCA	Public Utility Holding Company Act of 2005
PURPA	Public Utility Regulatory Policies Act of 1978
QF	Qualifying Facility under PURPA
REC	Renewable Energy Certificate
ROFO	Right of First Offer
RPS	Renewable Portfolio Standards
RPV Holdco	RPV Holdco 1 LLC
RTO	Regional Transmission Organization
SCE	Southern California Edison
SEC	U.S. Securities and Exchange Commission
Senior Notes	Collectively, the 2024 Senior Notes, the 2025 Senior Notes and the 2026 Senior Notes
SO_2	Sulfur Dioxide
SPP	Solar Power Partners
Tax Act	Tax Cuts and Jobs Act of 2017
Termination Agreement	Termination Agreement entered into as of August 31, 2018 by and between NRG Energy, Inc. and the Company to terminate the Management Services Agreement between the parties
Thermal Business	The Company's thermal business, which consists of thermal infrastructure assets that provide steam, hot water and/or chilled water, and in some instances electricity, to commercial businesses, universities, hospitals and governmental units

UPMC Thermal Project	The University of Pittsburgh Medical Center Thermal Project, a 73 MWt district energy system that allows ECP to provide steam, chilled water and 7.5 MW of emergency backup power service to UPMC.
U.S.	United States of America
U.S. DOE	U.S. Department of Energy
Utah Solar Portfolio	Collection consists of Four Brothers Solar, LLC, Granite Mountain Holdings, LLC, and Iron Springs Holdings, LLC, which are equity investments owned by Four Brothers Holdings, LLC, Granite Mountain Renewables, LLC, and Iron Springs Renewables, LLC, respectively, and are part of the March 2017 Drop Down Assets acquisition that closed on March 27, 2017
Utility Scale Solar	Solar power projects, typically 20 MW or greater in size (on an alternating current, or AC, basis), that are interconnected into the transmission or distribution grid to sell power at a wholesale level
VaR	Value at Risk
VIE	Variable Interest Entity
Wind TE Holdco	Wind TE Holdco LLC, an 814 net MW portfolio of twelve wind projects

PART I

Item 1 — Business

General

Clearway Energy LLC (formerly NRG Yield LLC), together with its consolidated subsidiaries, or the Company, is an energy infrastructure investor in and owner of modern, sustainable and long-term contracted assets across North America. On August 31, 2018, NRG Energy, Inc., or NRG, transferred its full ownership interest in the Company to Clearway Energy Group LLC, or CEG, which is also the holder of NRG 's renewable energy development and operations platform, and NRG subsequently sold 100% of its interest in CEG to an affiliate of GIP, such transaction referred to hereinafter as the GIP Transaction. As a result of the GIP Transaction, GIP indirectly acquired a 45.2% economic interest in Clearway Energy LLC (formerly NRG Yield LLC) and a 55.0% voting interest in the Company. Global Infrastructure Management, LLC is an independent fund manager of funds that invests in infrastructure assets in the energy and transport sectors and Global Infrastructure Partners III is its third equity fund. The Company is sponsored by GIP through GIP's portfolio company, CEG.

The Company's environmentally sound asset portfolio includes over 5,272 MW of wind, solar and natural gas-fired power generation facilities, as well as district energy systems. The weighted average remaining contract duration of these offtake agreements, based on CAFD, was approximately 15 years as of December 31, 2018. The Company also owns thermal infrastructure assets with an aggregate steam and chilled water capacity of 1,385 net MWt and electric generation capacity of 133 net MW. These thermal infrastructure assets provide steam, hot and/or chilled water, and, in some instances, electricity to commercial businesses, universities, hospitals and governmental units in multiple locations, principally through long-term contracts or pursuant to rates regulated by state utility commissions.

A complete listing of the Company's interests in facilities, operations and/or projects owned or leased as of December 31, 2018 can be found in Item 2 — *Properties.*

Pacific Gas and Electric Company Bankruptcy

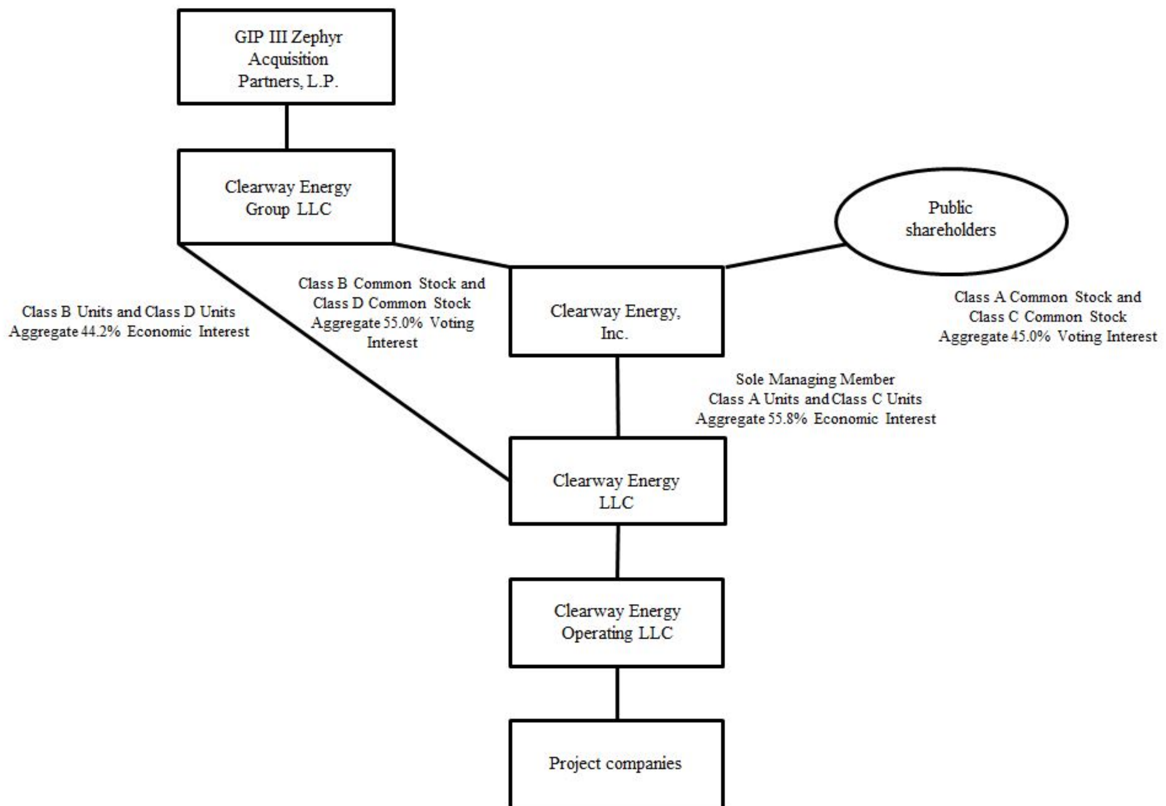
On January 29, 2019, Pacific Gas and Electric Company, or PG&E, filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Northern District of California, or the Bankruptcy Court. Certain subsidiaries of the Company, which hold interests in 6 solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW, sell the output of their facilities to PG&E under long-term power purchase agreements, or PPAs. The Company consolidates three of the solar facilities and Marsh Landing and records its interest in the other solar facilities as equity method investments. As of December 31, 2018, the Company had $1.5 billion of property, plant and equipment, net, $352 million investments in unconsolidated affiliates and $1.4 billion of long - term debt related to these facilities. The related subsidiaries of the Company have entered into financing agreements consisting of non-recourse project level debt and, in certain cases, non-recourse holding company debt. The PG&E Bankruptcy filing has triggered defaults under the PPAs with PG&E and such related financing agreements. The Company is currently negotiating forbearance agreements with the lenders for each respective financing arrangement. The Company continues to assess the potential future impacts of the PG&E Bankruptcy as events occur, however, no impact to the Company's immediate operating activities has occurred as of December 31, 2018.

History

The Company was formed as a Delaware limited liability company on March 5, 2013. The Company is a holding company for the companies that directly and indirectly own and operate Clearway, Inc.'s business. As of December 31, 2018, GIP, through CEG, controls Clearway, Inc., and Clearway, Inc. in turn, as the sole managing member of the Company, controls the Company and its subsidiaries.

As of December 31, 2018, GIP, through CEG, owned 42,738,750 of each of the Company's Class B units and Class D units and Clearway, Inc. owned 34,586,250 of the Company's Class A units and 73,187,646 of the Company's Class C units. Clearway, Inc., through its holdings of Class A units and Class C units, has a 55.8% economic interest in the Company. Clearway, Inc. consolidates the results of the Company through its controlling interest as sole managing member. GIP, through CEG's holdings of Class B units and Class D units, has a 44.2% economic interest in the Company.

The diagram below depicts the Company’s organizational structure as of December 31, 2018:



Strategic Sponsorship with Global Infrastructure Partners

As described above, on August 31, 2018, NRG transferred its full ownership interest in the Company to Clearway Energy Group LLC, or CEG, the holder of NRG's renewable energy development and operations platform and subsequently sold 100% of its interest in CEG to an affiliate of GIP. As a result of the GIP Transaction, GIP indirectly acquired a 45.2% economic interest in the Company and a 55.0% voting interest in Clearway, Inc. as of August 31, 2018.

In connection with the GIP Transaction, Clearway, Inc. entered into a Consent and Indemnity Agreement with NRG and GIP setting forth key terms and conditions of Clearway, Inc.'s consent to the GIP Transaction.

Also in connection with the GIP Transaction, Clearway, Inc. entered into the following agreements on August 31, 2018:

CEG Master Services Agreements

The Company, along with Clearway, Inc. and Clearway Energy Operating LLC, entered into Master Services Agreements with CEG, pursuant to which CEG and certain of its affiliates or third party service providers began providing certain services to Clearway, Inc. and certain of its subsidiaries, and Clearway, Inc. and certain of its subsidiaries began providing certain services to CEG, in exchange for the payment of fees in respect of such services. Additional details regarding the Master Services Agreements are found in Item 15 — Note 13, *Related Party Transactions*, to the Consolidated Financial Statements.

ROFO Agreements

Clearway, Inc. entered into a ROFO Agreement with CEG, or the CEG ROFO Agreement, and a Third Amended and Restated ROFO Agreement with NRG as further discussed below.

Voting and Governance Agreement

Clearway, Inc. entered into a Voting and Governance Agreement with CEG relating to certain governance matters of Clearway, Inc.

Limited Liability Company Agreement

Clearway, Inc. entered into the Fourth Amended and Restated Limited Liability Company Agreement of the Company with CEG, which sets forth the rights and obligations of Clearway, Inc., as managing member, and CEG, as member, of the Company.

Transition Services Agreement

Clearway, Inc. entered into the NRG TSA, pursuant to which NRG or certain of its affiliates began providing transition services to Clearway, Inc. following the consummation of the GIP Transaction, in exchange for the payment of a fee in respect of such services. The agreement is effective until the earlier of June 30, 2019 or the date that all services are terminated by Clearway, Inc. Clearway, Inc. may extend the term on a month-by-month basis no later than March 31, 2020 for a fixed monthly fee provided for in the agreement.

Business Strategy

The Company's primary business strategy is to focus on the acquisition and ownership of assets with predictable, long-term cash flows in order that it may be able to increase the cash distributions to Clearway, Inc. over time without compromising the ongoing stability of the business. As discussed above, the PG&E Bankruptcy has caused uncertainty around the timing of when certain project-level distributions will be available to the Company and Clearway, Inc. As a result of such timing uncertainty, the Company reduced its quarterly distributions for the first quarter of 2019 to $0.20 per unit, compared to $0.331 per unit in the prior quarter. While the Company views this action as prudent from a financial perspective, it has not changed the Company's long-term business strategy.

The Company's plan for executing its business strategy includes the following key components:

Focus on contracted renewable energy and conventional generation and thermal infrastructure assets. The Company owns and operates utility scale and distributed renewable energy and natural gas-fired generation, thermal and other infrastructure assets with proven technologies, low operating risks and stable cash flows. The Company believes by focusing on this core asset class and leveraging its industry knowledge, it will maximize its strategic opportunities, be a leader in operational efficiency and maximize its overall financial performance.

Growing the business through acquisitions of contracted operating assets. The Company believes that its base of operations provides a platform in the conventional and renewable power generation and thermal sectors for strategic growth through cash accretive and tax advantaged acquisitions complementary to its existing portfolio. In addition to acquiring renewable generation, conventional generation and thermal infrastructure assets from third parties where the Company believes its knowledge of the market and operating expertise provides it with a competitive advantage, the Company entered into the CEG ROFO Agreement. Under the CEG ROFO Agreement, CEG has granted the Company and its affiliates a right of first offer on any proposed sale, transfer or other disposition of certain assets of CEG, or the CEG ROFO Assets, until August 31, 2023. CEG is not obligated to sell the remaining CEG ROFO Assets to the Company and, if offered by CEG, the Company cannot be sure whether these assets will be offered on acceptable terms, or that the Company will choose to consummate such acquisitions. The assets listed below represent the Company's currently committed investments and the CEG ROFO Assets:

Committed Investments

Asset	Technology	Net Capacity (MW)	State	COD
Hawaii Solar Phase I[(a)]	PV	80	HI	2019
$47 MM remaining in distributed and community solar partnerships[(b)]	PV	N/A	Various	Various
Repowering Partnership with CEG [(c)]	Wind	283	TX	2020

Clearway Energy Group ROFO

Asset	Technology	Net Capacity (MW)	State	COD
Mililani I	PV	39	HI	2021
Waiawa	PV	36	HI	2021
Langford	Wind	150	TX	2009
Mesquite Star	Wind	419	TX	2020
Carlsbad[(d)]	Natural Gas	527	CA	2018
Up to $170 MM equity investment in business renewables	PV	TBD	Various	TBD

[(a)] On August 31, 2018, Clearway Energy Operating LLC and Clearway Energy Group executed a purchase agreement pursuant to which the Company will acquire effective equity ownership in 80 MW of utility-scale solar projects (Waipao, Mililani II and Kawailoa Solar) located in Oahu, Hawaii.
[(b)] On December 26, 2018, the Company and CEG amended the DGPV Holdco 3 partnership agreement to increase the capital commitment of $50 million to $70 million.
[(c)] Investment in the Repowering Partnership with CEG is contingent upon obtaining related construction and tax equity financing.
[(d)] The Company maintains the option to purchase Carlsbad from GIP at any time within 18 months after February 27, 2019 at the same economic terms at which it originally agreed to purchase the asset from NRG. Should the Company not acquire Carlsbad within such 18 months, Carlsbad will become a CEG ROFO Asset.

The NRG ROFO Agreement was amended upon the closing of the GIP Transaction to (i) remove the Ivanpah solar facility and (ii) provide the Company and its subsidiaries a right of first offer on any proposed sale or transfer of 100% of the membership interest in Agua Caliente Borrower 1, LLC, which owns a 35% interest in Agua Caliente, a 290 MW utility-scale solar project located in Dateland, Arizona with PG&E as the project's customer. Pursuant to the terms of the NRG ROFO Agreement, the Company elected to forgo the acquisition. The Company continues to own a 16% interest in the project through Agua Caliente Borrower 2 LLC.

The Company entered into an agreement with NRG to purchase the Carlsbad project on February 6, 2018. The Company elected to exercise the Carlsbad backstop facility provided by GIP; as such, GIP purchased 100% of the membership interest in Carlsbad Energy Holdings LLC on February 27, 2019.

Additionally, the CEG ROFO Agreement was amended on February 14, 2019, to grant to the Company a right of first offer for Hawaii Solar Phase II, which consist of Mililani I and Waiawa solar and storage projects located in Oahu, Hawaii. The projects are expected to reach COD in 2021.

Primary focus on North America. The Company intends to primarily focus its investments in North America (including the unincorporated territories of the U.S.). The Company believes that industry fundamentals in North America present it with significant opportunity to acquire renewable, natural gas-fired generation and thermal infrastructure assets, without creating significant exposure to currency and sovereign risk. By primarily focusing its efforts on North America, the Company believes it will best leverage its regional knowledge of power markets, industry relationships and skill sets to maximize the performance of the Company.

Competition

Power generation is a capital-intensive business with numerous and diverse industry participants. The Company competes on the basis of the location of its plants and on the basis of contract price and terms of individual projects. Within the power industry, there is a wide variation in terms of the capabilities, resources, nature and identity of the companies with whom the Company competes with depending on the market. Competitors for energy supply are utilities, independent power producers and other providers of distributed generation. The Company also competes to acquire new projects with renewable developers who retain renewable power plant ownership, independent power producers, financial investors and other dividend, growth-oriented companies. Competitive conditions may be substantially affected by capital market conditions and by various forms of energy legislation and regulation considered by federal, state and local legislatures and administrative agencies, including tax policy. Such laws and regulations may substantially increase the costs of acquiring, constructing and operating projects, and it could be difficult for the Company to adapt to and operate under such laws and regulations.

The Company's thermal business has certain cost efficiencies that may form barriers to entry. Generally, there is only one district energy system in a given territory, for which the only competition comes from on-site systems. While the district energy system can usually make an effective case for the efficiency of its services, some building owners nonetheless may opt for on-site systems, either due to corporate policies regarding allocation of capital, unique situations where an on-site system might in fact prove more efficient, or because of previously committed capital in systems that are already on-site. Growth in existing district energy systems generally comes from new building construction or existing building conversions within the service territory of the district energy provider.

Competitive Strengths

Stable, high quality cash flows. The Company's facilities have a stable, predictable cash flow profile consisting of predominantly long-life electric generation assets that sell electricity under long-term fixed priced contracts or pursuant to regulated rates with investment grade and certain other credit-worthy counterparties. As discussed above, PG&E, one of the Company's significant customers, filed for bankruptcy on January 29, 2019. Additionally, the Company's facilities have minimal fuel risk. For the Company's conventional assets, fuel is provided by the toll counterparty or the cost thereof is a pass-through cost under the Contract for Differences, or CfD. Renewable facilities have no fuel costs, and most of the Company's thermal infrastructure assets have contractual or regulatory tariff mechanisms for fuel cost recovery. The offtake agreements for the Company's conventional and renewable generation facilities have a weighted-average remaining duration, based on CAFD, of approximately 15 years as of December 31, 2018, providing long-term cash flow stability. The Company's generation offtake agreements with counterparties for whom credit ratings are available have a weighted-average Moody's rating of Ba1 (post PG&E Bankruptcy) based on rated capacity under contract. All of the Company's assets are in the U.S. and accordingly have no currency or repatriation risks.

High quality, long-lived assets with low operating and capital requirements. The Company benefits from a portfolio of relatively younger assets, other than thermal infrastructure assets. The Company's assets are comprised of proven and reliable technologies, provided by leading original solar and wind equipment manufacturers such as General Electric, Siemens AG, SunPower Corporation, or SunPower, First Solar Inc., or First Solar, Vestas, Suzlon and Mitsubishi. Given the modern nature of the portfolio, which includes a substantial number of relatively low operating and maintenance cost solar and wind generation assets, the Company expects to achieve high fleet availability and expend modest maintenance-related capital expenditures.

Significant scale and diversity. The Company owns and operates a large and diverse portfolio of contracted electric generation and thermal infrastructure assets. As of December 31, 2018, the Company's 5,272 net MW contracted generation portfolio benefits from significant diversification in terms of technology, fuel type, counterparty and geography. The Company's thermal business consists of thirteen operations, seven of which are district energy centers that provide steam and chilled water to approximately 695 customers, and six of which provide generation. The Company believes its scale and access to best practices across the fleet improves its business development opportunities through enhanced industry relationships, reputation and understanding of regional power market dynamics. Furthermore, the Company's diversification reduces its operating risk profile and reliance on any single market.

Relationship with GIP and CEG. The Company believes that its relationship with GIP and CEG provides significant benefits. Global Infrastructure Management, LLC, or GIM, the manager of GIP, is an independent infrastructure fund manager with over $51 billion in assets under management (as of September 30, 2018) that invests in infrastructure assets and businesses in both OECD and select emerging market countries. GIM has a strong track record of investment and value creation in the renewable energy sector. GIM also has extensive experience with publicly traded yield vehicles and development platforms, ranging from Europe's first application of a yield company/development company model to the largest renewable platform in Asia-Pacific. Additionally, the Company believes that CEG provides the Company access to a highly capable renewable development and operations platform that is aligned to support the Company's growth.

Environmentally well-positioned portfolio of assets. The Company's portfolio of electric generation assets consists of 3,327 net MW of renewable generation capacity that are non-emitting sources of power generation. The Company's conventional assets consist of the dual fuel-fired GenConn assets as well as the Marsh Landing and Walnut Creek simple cycle natural gas-fired peaking generation facilities and the El Segundo combined cycle natural gas-fired peaking facility. The Company does not anticipate having to expend any significant capital expenditures in the foreseeable future to comply with current environmental regulations applicable to its generation assets. Taken as a whole, the Company believes its strategy will be a net beneficiary of current and potential environmental legislation and regulatory requirements that may serve as a catalyst for capacity retirements and improve market opportunities for environmentally well-positioned assets like the Company's assets once its current offtake agreements expire.

Thermal infrastructure business has high entry costs. Significant capital has been invested to construct the Company's thermal infrastructure assets, serving as a barrier to entry in the markets in which such assets operate. As of December 31, 2018, the Company's thermal gross property, plant, and equipment was approximately $583 million. The Company's thermal district energy centers are located in urban city areas, with the chilled water and steam delivery systems located underground. Constructing underground delivery systems in urban areas requires long lead times for permitting, rights of way and inspections and is costly. By contrast, the incremental cost to add new customers in existing markets is relatively low. Once thermal infrastructure is established, the Company believes it has the ability to retain customers over long periods of time and to compete effectively for additional business against stand-alone on-site heating and cooling generation facilities. Installation of stand-alone equipment can require significant modification to a building as well as significant space for equipment and funding for capital expenditures. The Company's system technologies often provide economies of scale in terms of fuel procurement, ability to switch between multiple types of fuel to generate thermal energy, and fuel conversion efficiency.

Segment Review

The following tables summarize the Company's operating revenues, net income (loss) and assets by segment for the years ended December 31, 2018, 2017 and 2016, as discussed in Item 15 — Note 12, *Segment Reporting*, to the Consolidated Financial Statements. All amounts have been recast to include the effect of the acquisitions of the Drop Down Assets, which were accounted for as transfers of entities under common control. The accounting guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect since the inception of common control. Accordingly, the Company prepared its consolidated financial statements to reflect the transfers as if they had taken place from the beginning of the financial statements period or from the date the entities were under common control (if later than the beginning of the financial statements period).

	Year ended December 31, 2018				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Operating revenues	$ 337	$ 526	$ 193	$ (3)	$ 1,053
Net income (loss)	135	86	29	(115)	135
Total assets	1,788	5,836	516	308	8,448

	Year ended December 31, 2017				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Operating revenues	$ 336	$ 501	$ 172	$ —	$ 1,009
Net income (loss)	120	8	25	(92)	61
Total assets	1,897	6,017	422	24	8,360

(In millions)	Year ended December 31, 2016				
	Conventional Generation	Renewables	Thermal	Corporate	Total
Operating revenues	$ 333	$ 532	$ 170	$ —	$ 1,035
Net income (loss)	153	(86)	29	(81)	15

Policy Incentives

Policy incentives in the U.S. have the effect of making the development of renewable energy projects more competitive by providing credits and other tax benefits for a portion of the development costs. A loss of or reduction in such incentives could decrease the attractiveness of renewable energy projects to developers, including CEG, which could reduce the Company's future acquisition opportunities. Such a loss or reduction could also reduce the Company's willingness to pursue or develop certain renewable energy projects due to higher operating costs or decreased revenues under its PPAs.

U.S. federal, state and local governments have established various incentives to support the development of renewable energy projects. These incentives include accelerated tax depreciation, PTCs, ITCs, cash grants, tax abatements and RPS programs. Pursuant to the U.S. federal Modified Accelerated Cost Recovery System, or MACRS, wind and solar projects are fully depreciated for tax purposes over a five-year period even though the useful life of such projects is generally much longer than five years. The Tax Act also provides the ability for wind and solar projects to claim immediate expensing for property acquired and placed in service after September 27, 2017, and before January 1, 2023.

Owners of utility-scale wind facilities are eligible to claim an income tax credit (the PTC, or an ITC in lieu of the PTC) upon initially achieving commercial operation. The PTC is determined based on the amount of electricity produced by the wind facility during the first ten years of commercial operation. This incentive was created under the Energy Policy Act of 1992 and has been extended several times. Alternatively, an ITC equal to 30% of the cost of a wind facility may be claimed in lieu of the PTC. In order to qualify for the PTC (or ITC in lieu of the PTC), construction of a wind facility must begin before a specified date and the taxpayer must maintain a continuous program of construction or continuous efforts to advance the project to completion. The Internal Revenue Service, or IRS, issued guidance stating that the safe harbor for continuous efforts and continuous construction requirements will generally be satisfied if the facility is placed in service no more than four years after the year in which construction of the facility began. The IRS also confirmed that retrofitted wind facilities may re-qualify for PTCs or ITCs pursuant the begin construction requirement, as long as the cost basis of the new investment is at least 80% of the facility’s total fair value.

Owners of solar projects are eligible to claim a 30% ITC for new solar projects, or could have elected to receive an equivalent cash payment from the U.S. Department of Treasury for the value of the 30% ITC for qualifying solar projects where construction began before the end of 2011 and the projects were placed in service before 2017. Tax credits for qualifying wind and solar projects are subject to the following phase-down schedule.

	Year construction of project begins							
	2015	2016	2017	2018	2019	2020	2021	2022
PTC[(a)]	100 %	100 %	80 %	60 %	40 %	0	0	0
Wind ITC	30 %	30 %	24 %	18 %	12 %	0	0	0
Solar ITC[(b)]	30 %	30 %	30 %	30 %	30 %	26 %	22 %	10 %

(a) Percentage of the full PTC available for wind projects that begin construction during the applicable year.
(b) ITC is limited to 10% for projects not placed in service before January 1, 2024.

RPS, currently in place in certain states and territories, require electricity providers in the state or territory to meet a certain percentage of their retail sales with energy from renewable sources. Additionally, other states in the U.S. have set renewable energy goals to reduce GHG emissions from historic levels. The Company believes that these standards and goals will create incremental demand for renewable energy in the future.

Regulatory Matters

As owners of power plants and participants in wholesale and thermal energy markets, certain of the Company's subsidiaries are subject to regulation by various federal and state government agencies. These agencies include FERC and the PUCT, as well as other public utility commissions in certain states where the Company's assets are located. Each of the Company's U.S. generating facilities qualifies as an EWG or QF. In addition, the Company is subject to the market rules, procedures and protocols of the various ISO and RTO markets in which it participates. Likewise, certain of the Company's subsidiaries must also comply with the mandatory reliability requirements imposed by NERC and the regional reliability entities in the regions where the Company has generating facilities subject to NERC's reliability authority. The Company's operations within the ERCOT footprint are not subject to rate regulation by FERC, as they are deemed to operate solely within the ERCOT market and not in interstate commerce. These operations are subject to regulation by PUCT.

FERC

FERC, among other things, regulates the transmission and the wholesale sale of electricity in interstate commerce under the authority of the FPA. The transmission of electric energy occurring wholly within ERCOT is not subject to FERC’s jurisdiction. Under existing regulations, FERC determines whether an entity owning a generation facility is an EWG, as defined in the PUHCA. FERC also determines whether a generation facility meets the applicable criteria of a QF under the PURPA. Each of the Company’s generating facilities qualifies as either an EWG or QF.

The FPA gives FERC exclusive rate-making jurisdiction over the wholesale sale of electricity and transmission of electricity in interstate commerce of public utilities (as defined by the FPA). Under the FPA, FERC, with certain exceptions, regulates owners and operators of facilities used for the wholesale sale of electricity or transmission in interstate commerce as public utilities, and is charged with ensuring that market rules that are just and reasonable.

Public utilities are required to obtain FERC’s acceptance, pursuant to Section 205 of the FPA, of their rate schedules for the wholesale sale of electricity. All of the Company’s non-QF generating entities located outside of ERCOT make sales of electricity pursuant to market-based rates, as opposed to traditional cost-of-service regulated rates. FERC will conduct a review of the market based rates of Company public utilities and potential market power every three years according to a regional schedule established by FERC.

In accordance with the Energy Policy Act of 2005, FERC has approved the NERC as the national Energy Reliability Organization, or ERO. As the ERO, NERC is responsible for the development and enforcement of mandatory reliability standards for the wholesale electric power system. In addition to complying with NERC requirements, each entity must comply with the requirements of the regional reliability entity for the region in which it is located.

The PURPA was passed in 1978 in large part to promote increased energy efficiency and development of independent power producers. The PURPA created QFs to further both goals, and FERC is primarily charged with administering the PURPA as it applies to QFs. Certain QFs are exempt from regulation, either in whole or in part, under the FPA.

The PUHCA provides FERC with certain authority over and access to books and records of public utility holding companies not otherwise exempt by virtue of their ownership of EWGs, QFs, and Foreign Utility Companies. The Company is exempt from many of the accounting, record retention, and reporting requirements of the PUHCA.

Environmental Matters

The Company is subject to a wide range of environmental laws in the development, construction, ownership and operation of projects. These laws generally require that governmental permits and approvals be obtained before construction and during operation of facilities. The Company is also subject to laws regarding the protection of wildlife, including migratory birds, eagles, threatened and endangered species. Federal and state environmental laws have historically become more stringent over time, although this trend could change in the future.

In October 2015, the EPA finalized the Clean Power Plan, or CPP, addressing GHG emissions from existing EGUs. On February 9, 2016, the U.S. Supreme Court stayed the CPP. The D.C. Circuit heard oral argument on the legal challenges to the CPP in September 2016. At the EPA's request, the D.C. Circuit agreed on April 28, 2017 to hold the case in abeyance. On October 16, 2017, the EPA proposed a rule to repeal the CPP. Accordingly, the Company believes the CPP is not likely to survive. In August 21, 2018, the EPA proposed the Affordable Clean Energy (ACE) rule which would establish emission guidelines for states to develop plans to address greenhouse gas emissions from existing coal-fired power plants. The ACE rule would replace the 2015 Clean Power Plan. A public hearing on the proposed ACE rule was held on October 1, 2018. As currently written, the ACE focuses on reducing emissions from existing coal-fired power plants and therefore, would not be applicable to the Company's EGUs.

Migratory Bird Treaty Act

During the 2018 California legislative sessions AB 2627 (Kalra), a bill designed to backstop the Migratory Bird Treaty Act, or MBTA, interpretation by the Obama Administration was introduced. AB 2627 provided legislative confirmation of the illegality of take of any MBTA species, unless the entity deployed Best Management Practices that had been approved by the California Department of Fish and Wildlife, or CDFW. The bill was pulled by the author at the end of session. However, on November 30, 2018, CDFW issued a legal advisory declaring that the state can still prohibit the unintentional killing of migratory birds even if the Department of the Interior says the federal government cannot. It is expected a revival of the MBTA bill will occur in 2019.

Customers

The Company sells its electricity and environmental attributes, including RECs, primarily to local utilities under long-term, fixed-price PPAs. During the year ended December 31, 2018, the Company derived approximately 40% of its consolidated revenue from Southern California Edison, or SCE, and approximately 23% of its consolidated revenue from Pacific Gas and Electric Company, or PG&E. See *Pacific Gas and Electric Company Bankruptcy* within this Item 1, Business and *"Risks Related to the PG&E Bankruptcy*" found in Item 1A, *Risk Factors*, to this Annual Report on Form 10-K for additional information regarding the PG&E Bankruptcy.

Employees

As of December 31, 2018, the Company and its consolidated subsidiaries had 269 employees.

Available Information

The Company's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to section 13(a) or 15(d) of the Exchange Act are available free of charge through the "Investor Relations" section of Clearway, Inc.'s website, *www.clearwayenergy.com*, as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The Company also routinely posts press releases, presentations, webcasts, and other information regarding the Company on Clearway Energy, Inc.'s website. The information posted on Clearway Energy, Inc.'s website is not a part of this report.

Item 1A — Risk Factors

Risks related to the PG&E Bankruptcy

The PG&E bankruptcy could adversely affect the Company's results of operations, financial condition and cash flows.

On January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Northern District of California. PG&E is one of the Company's largest customers, representing approximately 23% of the Company's consolidated operating revenues during the year ended December 31, 2018 and 16% of total accounts receivable as of December 31, 2018, of which all has been collected as of January 31, 2019. Certain subsidiaries of the Company, which hold interests in six solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW, sell the output of their facilities to PG&E under long-term PPAs. The Company consolidates three of the solar facilities and Marsh Landing, and records its interest

in the other solar facilities as equity method investments. Most of the PPAs with PG&E have contract prices that are higher than currently estimated market prices. These contracts are subject to review by the bankruptcy court and FERC, pursuant to a January 2019 FERC order, or the FERC Order. PG&E has commenced an adversary proceeding against FERC seeking, among other things, an injunction with respect to the FERC Order. If PG&E does not have the financial means or refuses to pay the amounts owing to the Company under the PPAs, and if the Company cannot recover the amounts owed through other means, the Company may be required to write-off all, or a portion of, any outstanding accounts receivable, and to impair its fixed assets. Any such results would adversely affect the Company's financial results.

The PG&E bankruptcy filing has triggered defaults under the PPAs with PG&E and under the related financing agreements for each respective facility, all of which have non-recourse project level debt and in certain cases, non-recourse holding company debt. The Company is currently negotiating forbearance agreements with the lenders for each respective financing arrangement, but the Company can provide no assurance that it will be able to successfully negotiate the forbearance agreements.

The Company continues to assess the potential future impacts of the PG&E Bankruptcy on the Company's operations. The realization of any of the above risks could significantly and adversely affect the Company's ability to meet its financial expectations, its financial condition, results of operations, and cash flows, its ability to make distributions to its stockholders, the market price of its common stock, and its ability to satisfy its debt service obligations.

Counterparties to the Company's offtake agreements may not fulfill their obligations and, as the contracts expire, the Company may not be able to replace them with agreements on similar terms in light of increasing competition in the markets in which the Company operates.

A significant portion of the electric power the Company generates is sold under long-term offtake agreements with public utilities or industrial or commercial end-users, with a weighted average remaining duration, based on CAFD, of approximately 15 years. As of December 31, 2018, the largest customers of the Company's power generation assets, including assets in which the Company has less than a 100% membership interest, were SCE and PG&E, which represented 40% and 23%, respectively, of total consolidated revenues generated by the Company during the year ended December 31, 2018. As previously noted, on January 29, 2019, PG&E filed for reorganization under Chapter 11 of the Bankruptcy Code.

If, for any reason, any of the purchasers of power under these agreements, including PG&E as a result of the PG&E Bankruptcy, are unable or unwilling to fulfill their related contractual obligations or if they refuse to accept delivery of power delivered thereunder or if they otherwise terminate such agreements prior to the expiration thereof, the Company's assets, liabilities, business, financial condition, results of operations and cash flows could be materially and adversely affected. Furthermore, to the extent any of the Company's power purchasers are, or are controlled by, governmental entities, the Company's facilities may be subject to legislative or other political action that may impair their contractual performance.

The power generation industry is characterized by intense competition and the Company's electric generation assets encounter competition from utilities, industrial companies and other independent power producers, in particular with respect to uncontracted output. In recent years, there has been increasing competition among generators for offtake agreements and this has contributed to a reduction in electricity prices in certain markets characterized by excess supply above designated reserve margins. In light of these market conditions, the Company may not be able to replace an expiring or terminated agreement with an agreement on equivalent terms and conditions, including at prices that permit operation of the related facility on a profitable basis. In addition, the Company believes many of its competitors have well-established relationships with the Company's current and potential suppliers, lenders and customers and have extensive knowledge of its target markets. As a result, these competitors may be able to respond more quickly to evolving industry standards and changing customer requirements than the Company will be able to. Adoption of technology more advanced than the Company's could reduce its competitors' power production costs resulting in their having a lower cost structure than is achievable with the technologies currently employed by the Company and adversely affect its ability to compete for offtake agreement renewals. If the Company is unable to replace an expiring or terminated offtake agreement, the affected facility may temporarily or permanently cease operations. External events, such as a severe economic downturn or force majeure events, could also impair the ability of some counterparties to the Company's offtake agreements and other customer agreements to pay for energy and/or other products and services received.

The Company's inability to enter into new or replacement offtake agreements or to compete successfully against current and future competitors in the markets in which the Company operates could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

Risks Related to the Company's Business

Certain facilities are newly constructed and may not perform as expected.

Certain of the Company's conventional and renewable assets are newly constructed. The ability of these facilities to meet the Company's performance expectations is subject to the risks inherent in newly constructed power generation facilities and the construction of such facilities, including, but not limited to, degradation of equipment in excess of the Company's expectations, system failures, and outages. The failure of these facilities to perform as the Company expects could have a material adverse effect on the Company's business, financial condition, results of operations, cash flows and its ability to pay distributions to Clearway Energy, Inc. and CEG.

Pursuant to the Company's cash distribution policy, the Company intends to distribute a significant amount of the CAFD through regular quarterly distributions, and the Company's ability to grow and make acquisitions through cash on hand could be limited.

The Company expects to distribute a significant amount of the CAFD each quarter and to rely primarily upon external financing sources, including the issuance of debt and equity securities and, if applicable, borrowings under the Company's revolving credit facility to fund acquisitions and growth capital expenditures. The Company may be precluded from pursuing otherwise attractive acquisitions if the projected short-term cash flow from the acquisition or investment is not adequate to service the capital raised to fund the acquisition or investment, after giving effect to the Company's available cash reserves. The incurrence of bank borrowings or other debt by Clearway Energy Operating LLC or by the Company's project-level subsidiaries to finance the Company’s growth strategy will result in increased interest expense and the imposition of additional or more restrictive covenants, which, in turn, may impact the cash distributions the Company makes to Clearway Energy, Inc. and CEG.

The Company may not be able to effectively identify or consummate any future acquisitions on favorable terms, or at all.

The Company's business strategy includes growth through the acquisitions of additional generation assets (including through corporate acquisitions). This strategy depends on the Company’s ability to successfully identify and evaluate acquisition opportunities and consummate acquisitions on favorable terms. However, the number of acquisition opportunities is limited. In addition, the Company will compete with other companies for these limited acquisition opportunities, which may increase the Company’s cost of making acquisitions or cause the Company to refrain from making acquisitions at all. Some of the Company’s competitors for acquisitions are much larger than the Company with substantially greater resources. These companies may be able to pay more for acquisitions and may be able to identify, evaluate, bid for and purchase a greater number of assets than the Company’s financial or human resources permit. If the Company is unable to identify and consummate future acquisitions, it will impede the Company’s ability to execute its growth strategy and limit the Company’s ability to increase the amount of dividends paid to holders of Clearway Energy, Inc.'s common stock.

Furthermore, the Company’s ability to acquire future renewable facilities may depend on the viability of renewable assets generally. These assets currently are largely contingent on public policy mechanisms including ITCs, cash grants, loan guarantees, accelerated depreciation, RPS and carbon trading plans. These mechanisms have been implemented at the state and federal levels to support the development of renewable generation, demand-side and smart grid and other clean infrastructure technologies. The availability and continuation of public policy support mechanisms will drive a significant part of the economics and viability of the Company’s growth strategy and expansion into clean energy investments.

The Company’s ability to effectively consummate future acquisitions will also depend on the Company’s ability to arrange the required or desired financing for acquisitions.

The Company may not have sufficient availability under the Company’s credit facilities or have access to project-level financing on commercially reasonable terms when acquisition opportunities arise. An inability to obtain the required or desired financing could significantly limit the Company’s ability to consummate future acquisitions and effectuate the Company’s growth strategy. If financing is available, utilization of the Company’s credit facilities or project-level financing for all or a portion of the purchase price of an acquisition could significantly increase the Company’s interest expense, impose additional or more restrictive covenants and reduce CAFD. The Company’s ability to consummate future acquisitions may also depend on the Company’s ability to obtain any required regulatory approvals for such acquisitions, including, but not limited to, approval by FERC under Section 203 of the FPA.

Finally, the acquisition of companies and assets are subject to substantial risks, including the failure to identify material problems during due diligence (for which the Company may not be indemnified post-closing), the risk of overpaying for assets (or not making acquisitions on an accretive basis) and the ability to retain customers. Further, the integration and consolidation of acquisitions requires substantial human, financial and other resources and, ultimately, the Company's acquisitions may divert management's attention from the Company's existing business concerns, disrupt the Company's ongoing business or not be successfully integrated. There can be no assurances that any future acquisitions will perform as expected or that the returns from such acquisitions will support the financing utilized to acquire them or maintain them. As a result, the consummation of acquisitions may have a material adverse effect on the Company's business, financial condition, results of operations, cash flows and ability to pay distributions to Clearway Energy, Inc. and CEG.

Even if the Company consummates acquisitions that it believes will be accretive to CAFD, those acquisitions may decrease CAFD as a result of incorrect assumptions in the Company's evaluation of such acquisitions, unforeseen consequences or other external events beyond the Company's control.

The acquisition of existing generation assets involves the risk of overpaying for such projects (or not making acquisitions on an accretive basis) and failing to retain the customers of such projects. While the Company will perform due diligence on prospective acquisitions, the Company may not discover all potential risks, operational issues or other issues in such generation assets. Further, the integration and consolidation of acquisitions require substantial human, financial and other resources and, ultimately, the Company's acquisitions may divert the Company's management's attention from its existing business concerns, disrupt its ongoing business or not be successfully integrated. Future acquisitions might not perform as expected or the returns from such acquisitions might not support the financing utilized to acquire them or maintain them. A failure to achieve the financial returns the Company expects when it acquires generation assets could have a material adverse effect on the Company's ability to grow its business and make cash distributions to its unitholders. Any failure of the Company's acquired generation assets to be accretive or difficulty in integrating such acquisition into the Company's business could have a material adverse effect on the Company's ability to grow its business and make cash distributions to its unitholders.

The Company's indebtedness could adversely affect its ability to raise additional capital to fund the Company's operations or pay distributions. It could also expose the Company to the risk of increased interest rates and limit the Company's ability to react to changes in the economy or the Company's industry as well as impact the Company's results of operations, financial condition and cash flows.

As of December 31, 2018, the Company had approximately $6,038 million of total consolidated indebtedness, $4,329 million of which was incurred by the Company's non-guarantor subsidiaries. In addition, the Company's share of its unconsolidated affiliates' total indebtedness and letters of credit outstanding as of December 31, 2018, totaled approximately $878 million and $80 million, respectively (calculated as the Company's unconsolidated affiliates' total indebtedness as of such date multiplied by the Company's percentage membership interest in such assets). The Company's substantial debt could have important negative consequences on the Company's financial condition, including:

- increasing the Company's vulnerability to general economic and industry conditions;
- requiring a substantial portion of the Company's cash flow from operations to be dedicated to the payment of principal and interest on the Company's indebtedness, therefore reducing the Company's ability to pay distributions to Clearway Energy, Inc. and CEG or to use the Company's cash flow to fund its operations, capital expenditures and future business opportunities;
- limiting the Company's ability to enter into long-term power sales or fuel purchases which require credit support;
- limiting the Company's ability to fund operations or future acquisitions;
- restricting the Company's ability to make certain distributions to Clearway Energy, Inc. and CEG and the ability of the Company's subsidiaries to make certain distributions to it, in light of restricted payment and other financial covenants in the Company's credit facilities and other financing agreements;
- exposing the Company to the risk of increased interest rates because certain of the Company's borrowings, which may include borrowings under the Company's revolving credit facility, are at variable rates of interest;
- limiting the Company's ability to obtain additional financing for working capital including collateral postings, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes; and
- limiting the Company's ability to adjust to changing market conditions and placing it at a competitive disadvantage compared to the Company's competitors who have less debt.

The Company's revolving credit facility contains financial and other restrictive covenants that limit the Company's ability to return capital to stockholders or otherwise engage in activities that may be in the Company's long-term best interests. The Company's inability to satisfy certain financial covenants could prevent the Company from paying cash distributions, and the Company's failure to comply with those and other covenants could result in an event of default which, if not cured or waived, may entitle the related lenders to demand repayment or enforce their security interests, which could have a material adverse effect

on the Company’s business, financial condition, results of operations and cash flows. In addition, failure to comply with such covenants may entitle the related lenders to demand repayment and accelerate all such indebtedness.

As previously discussed, the PG&E bankruptcy filing has triggered defaults under the PPAs with PG&E and under the related financing agreements for each respective facility, all of which have non-recourse project level debt and in certain cases, holding company debt. The agreements governing the Company’s project-level financing contain financial and other restrictive covenants that limit the Company’s project subsidiaries’ ability to make distributions to the Company or otherwise engage in activities that may be in the Company’s long-term best interests. The project-level financing agreements generally prohibit distributions from the project entities to the Company unless certain specific conditions are met, including the satisfaction of certain financial ratios. The Company’s inability to satisfy certain financial covenants may prevent cash distributions by the particular project(s) to it and, the Company’s failure to comply with those and other covenants could result in an event of default which, if not cured or waived may entitle the related lenders to demand repayment or enforce their security interests, which could have a material adverse effect on the Company’s business, results of operations and financial condition. In addition, failure to comply with such covenants may entitle the related lenders to demand repayment and accelerate all such indebtedness. If the Company is unable to make distributions from the Company’s project-level subsidiaries, it would likely have a material adverse effect on the Company’s ability to pay distributions to Clearway, Inc. and CEG.

Letter of credit facilities to support project-level contractual obligations generally need to be renewed after five to seven years, at which time the Company will need to satisfy applicable financial ratios and covenants. If the Company is unable to renew the Company’s letters of credit as expected or replace them with letters of credit under different facilities on favorable terms or at all, the Company may experience a material adverse effect on its business, financial condition, results of operations and cash flows. Furthermore, such inability may constitute a default under certain project-level financing arrangements, restrict the ability of the project-level subsidiary to make distributions to it and/or reduce the amount of cash available at such subsidiary to make distributions to the Company.

In addition, the Company’s ability to arrange financing, either at the corporate level or at a non-recourse project-level subsidiary, and the costs of such capital, are dependent on numerous factors, including:

- general economic and capital market conditions;
- credit availability from banks and other financial institutions;
- investor confidence in the Company, its partners, Clearway, Inc. (as the Company's sole managing member), or GIP, through CEG, as Clearway, Inc.'s principal stockholder (on a combined voting basis) and the regional wholesale power markets;
- the Company’s financial performance and the financial performance of the Company subsidiaries;
- the Company’s level of indebtedness and compliance with covenants in debt agreements;
- maintenance of acceptable project credit ratings or credit quality;
- cash flow; and
- provisions of tax and securities laws that may impact raising capital.

The Company may not be successful in obtaining additional capital for these or other reasons. Furthermore, the Company may be unable to refinance or replace project-level financing arrangements or other credit facilities on favorable terms or at all upon the expiration or termination thereof. The Company's failure, or the failure of any of the Company’s projects, to obtain additional capital or enter into new or replacement financing arrangements when due may constitute a default under such existing indebtedness and may have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

Certain of the Company's long-term bilateral contracts result from state-mandated procurements and could be declared invalid by a court of competent jurisdiction.

A significant portion of the Company's revenues are derived from long-term bilateral contracts with utilities that are regulated by their respective states, and have been entered into pursuant to certain state programs. Certain long-term contracts that other companies have with state-regulated utilities have been challenged in federal court and have been declared unconstitutional on the grounds that the rate for energy and capacity established by the contracts impermissibly conflicts with the rate for energy and capacity established by FERC pursuant to the FPA. If certain of the Company's state-mandated agreements with utilities are ever held to be invalid or unenforceable due to the financial conditions or other conditions of such utility, the Company may be unable to replace such contracts, which could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

The generation of electric energy from solar and wind energy sources depends heavily on suitable meteorological conditions.

If solar or wind conditions are unfavorable, the Company's electricity generation and revenue from renewable generation facilities may be substantially below the Company's expectations. The electricity produced and revenues generated by a solar or wind energy generation facility is highly dependent on suitable solar or wind conditions, as applicable, and associated weather conditions, which are beyond the Company's control. Furthermore, components of the Company's systems, such as solar panels and inverters, could be damaged by severe weather, such as wildfires, hailstorms or tornadoes. In addition, replacement and spare parts for key components may be difficult or costly to acquire or may be unavailable. Unfavorable weather and atmospheric conditions could impair the effectiveness of the Company's assets or reduce their output beneath their rated capacity or require shutdown of key equipment, impeding operation of the Company's renewable assets. In addition, climate change may have the long-term effect of changing wind patterns at the Company's projects. Changing wind patterns could cause changes in expected electricity generation. These events could also degrade equipment or components and the interconnection and transmission facilities' lives or maintenance costs.

Although the Company bases its investment decisions with respect to each renewable generation facility on the findings of related wind and solar studies conducted on-site prior to construction or based on historical conditions at existing facilities, actual climatic conditions at a facility site, particularly wind conditions, may not conform to the findings of these studies and may be affected by variations in weather patterns, including any potential impact of climate change. Therefore, the Company's solar and wind energy facilities may not meet anticipated production levels or the rated capacity of the Company's generation assets, which could adversely affect the Company's business, financial condition, results of operations and cash flows.

Operation of electric generation facilities involves significant risks and hazards customary to the power industry that could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

The ongoing operation of the Company's facilities involves risks that include the breakdown or failure of equipment or processes or performance below expected levels of output or efficiency due to wear and tear, latent defect, design error or operator error or force majeure events, among other things. Operation of the Company's facilities also involves risks that the Company will be unable to transport its products to its customers in an efficient manner due to a lack of transmission capacity. Unplanned outages of generating units, including extensions of scheduled outages due to mechanical failures or other problems, occur from time to time and are an inherent risk of the business. Unplanned outages typically increase operation and maintenance expenses, capital expenditures and may reduce revenues as a result of selling fewer MWh or require the Company to incur significant costs as a result of obtaining replacement power from third parties in the open market to satisfy forward power sales obligations. The Company's inability to operate its electric generation assets efficiently, manage capital expenditures and costs and generate earnings and cash flow from the Company's asset-based businesses could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows. While the Company maintains insurance, obtains warranties from vendors and obligates contractors to meet certain performance levels, the proceeds of such insurance, warranties or performance guarantees may not cover the Company's lost revenues, increased expenses or liquidated damages payments should it experience equipment breakdown or non-performance by contractors or vendors.

Power generation involves hazardous activities, including acquiring, transporting and unloading fuel, operating large pieces of rotating equipment and delivering electricity to transmission and distribution systems.

In addition to natural risks such as earthquake, flood, lightning, hurricane and wind, other hazards, such as fire, explosion, structural collapse and machinery failure are inherent risks in the Company's operations. These and other hazards can cause significant personal injury or loss of life, severe damage to and destruction of property, plant and equipment and contamination of, or damage to, the environment and suspension of operations. The occurrence of any one of these events may result in the Company being named as a defendant in lawsuits asserting claims for substantial damages, including for environmental cleanup costs, personal injury and property damage and fines and/or penalties. The Company maintains an amount of insurance protection that it considers adequate but cannot provide any assurance that the Company's insurance will be sufficient or effective under all circumstances and against all hazards or liabilities to which the Company may be subject. Furthermore, the Company's insurance coverage is subject to deductibles, caps, exclusions and other limitations. A loss for which the Company is not fully insured (which may include a significant judgment against any facility or facility operator) could have a material adverse effect on the Company's business, financial condition, results of operations or cash flows. Further, due to rising insurance costs and changes in the insurance markets, the Company cannot provide any assurance that its insurance coverage will continue to be available at all or at rates or on terms similar to those presently available. Any losses not covered by insurance could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

Maintenance, expansion and refurbishment of electric generation facilities involve significant risks that could result in unplanned power outages or reduced output.

The Company's facilities may require periodic upgrading and improvement. Any unexpected operational or mechanical failure, including failure associated with breakdowns and forced outages, could reduce the Company's facilities' generating capacity below expected levels, reducing the Company's revenues and jeopardizing the Company's ability to pay distributions to Clearway, Inc. and CEG at expected levels or at all. Degradation of the performance of the Company's solar facilities above levels provided for in the related offtake agreements may also reduce the Company's revenues. Unanticipated capital expenditures associated with maintaining, upgrading or repairing the Company's facilities may also reduce profitability.

If the Company makes any major modifications to its conventional power generation facilities, it may be required to install the best available control technology or to achieve the lowest achievable emission rates as such terms are defined under the new source review provisions of the CAA in the future. Any such modifications could likely result in substantial additional capital expenditures. The Company may also choose to repower, refurbish or upgrade its facilities based on its assessment that such activity will provide adequate financial returns. Such facilities require time for development and capital expenditures before commencement of commercial operations, and key assumptions underpinning a decision to make such an investment may prove incorrect, including assumptions regarding construction costs, timing, available financing and future fuel and power prices. These events could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

The Company’s facilities may operate, wholly or partially, without long-term power sales agreements.

The Company’s facilities may operate without long-term power sales agreements for some or all of their generating capacity and output and therefore be exposed to market fluctuations. Without the benefit of long-term power sales agreements for the facilities, the Company cannot be sure that it will be able to sell any or all of the power generated by the facilities at commercially attractive rates or that the facilities will be able to operate profitably. This could lead to less predictable revenues, future impairments of the Company's property, plant and equipment or to the closing of certain of its facilities, resulting in economic losses and liabilities, which could have a material adverse effect on the Company's results of operations, financial condition or cash flows.

A portion of the steam and chilled water produced by the Company's thermal assets is sold at regulated rates, and the revenue earned by the Company's GenConn assets is established each year in a rate case; accordingly, the profitability of these assets is dependent on regulatory approval.

Approximately 451 net MWt of capacity from certain of the Company's thermal assets are sold at rates approved by one or more federal or state regulatory commissions, including the Pennsylvania Public Utility Commission and the California Public Utilities Commission for the thermal assets. Similarly, the revenues related to approximately 380 MW of capacity from the GenConn assets are established each year by the Connecticut Public Utilities Regulatory Authority. While such regulatory oversight is generally premised on the recovery of prudently incurred costs and a reasonable rate of return on invested capital, the rates that the Company may charge, or the revenue that the Company may earn with respect to this capacity are subject to authorization of the applicable regulatory authorities. There can be no assurance that such regulatory authorities will consider all of the costs to have been prudently incurred or that the regulatory process by which rates or revenues are determined will always result in rates or revenues that achieve full recovery of costs or an adequate return on the Company's capital investments. While the Company's rates and revenues are generally established based on an analysis of costs incurred in a base year, the rates the Company is allowed to charge, and the revenues the Company is authorized to earn, may or may not match the costs at any given time. If the Company's costs are not adequately recovered through these regulatory processes, it could have a material adverse effect on the business, financial condition, results of operations and cash flows.

Supplier and/or customer concentration at certain of the Company's facilities may expose the Company to significant financial credit or performance risks.

The Company often relies on a single contracted supplier or a small number of suppliers for the provision of fuel, transportation of fuel, equipment, technology and/or other services required for the operation of certain facilities. In addition, certain of the Company's suppliers provide long-term warranties with respect to the performance of their products or services. If any of these suppliers cannot perform under their agreements with the Company, or satisfy their related warranty obligations, the Company will need to utilize the marketplace to provide or repair these products and services. There can be no assurance that the marketplace can provide these products and services as, when and where required. The Company may not be able to enter into replacement agreements on favorable terms or at all. If the Company is unable to enter into replacement agreements to provide for fuel, equipment, technology and other required services, it would seek to purchase the related goods or services at market prices, exposing the Company to market price volatility and the risk that fuel and transportation may not be available during certain periods at any price. The Company may also be required to make significant capital contributions to remove, replace or redesign equipment that cannot be supported or maintained by replacement suppliers, which could have a material adverse effect on the business, financial condition, results of operations, credit support terms and cash flows.

In addition, potential or existing customers at the Company's district energy centers and combined heat and power plants, or the Energy Centers, may opt for on-site systems in lieu of using the Company's Energy Centers, either due to corporate policies regarding the allocation of capital, unique situations where an on-site system might in fact prove more efficient, because of previously committed capital in systems that are already on-site, or otherwise. At times, the Company relies on a single customer or a few customers to purchase all or a significant portion of a facility's output, in some cases under long-term agreements that account for a substantial percentage of the anticipated revenue from a given facility. For instance, during the year ended December 31, 2018, the Company derived approximately 23% of its consolidated revenue from PG&E, which filed for bankruptcy. For additional risks relating to the PG&E Bankruptcy, see "*Risks related to the PG&E Bankruptcy*" above.

The failure of any supplier to fulfill its contractual obligations to the Company or the Company's loss of potential or existing customers could have a material adverse effect on its financial results. Consequently, the financial performance of the Company's facilities is dependent on the credit quality of, and continued performance by, the Company's suppliers and vendors and the Company's ability to solicit and retain customers.

The Company currently owns, and in the future may acquire, certain assets in which the Company has limited control over management decisions and its interests in such assets may be subject to transfer or other related restrictions.

As described in Item 15 — Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities*, the Company has limited control over the operation of certain of its assets, because the Company beneficially owns less than a majority of the membership interests in such assets. The Company may seek to acquire additional assets in which it owns less than a majority of the related membership interests in the future. In these investments, the Company will seek to exert a degree of influence with respect to the management and operation of assets in which it owns less than a majority of the membership interests by negotiating to obtain positions on management committees or to receive certain limited governance rights, such as rights to veto significant actions. However, the Company may not always succeed in such negotiations. The Company may be dependent on its co-venturers to operate such assets. The Company's co-venturers may not have the level of experience, technical expertise, human resources management and other attributes necessary to operate these assets optimally. In addition, conflicts of interest may arise in the future between the Company and its stockholders, on the one hand, and the Company's co-venturers, on the other hand, where the Company's co-venturers' business interests are inconsistent with the interests of the Company and its stockholders. Further, disagreements or disputes between the Company and its co-venturers could result in litigation, which could increase expenses and potentially limit the time and effort the Company's officers and directors are able to devote to the business.

The approval of co-venturers may also be required for the Company to receive distributions of funds from assets or to sell, pledge, transfer, assign or otherwise convey its interest in such assets, or for the Company to acquire GIP's or CEG's interests in such co-ventures as an initial matter. Alternatively, the Company's co-venturers may have rights of first refusal or rights of first offer in the event of a proposed sale or transfer of the Company's interests in such assets. These restrictions may limit the price or interest level for interests in such assets, in the event the Company wants to sell such interests.

Furthermore, certain of the Company's facilities are operated by third-party operators, such as First Solar. To the extent that third-party operators do not fulfill their obligations to manage operations of the facilities or are not effective in doing so, the amount of CAFD may be adversely affected.

The Company's assets are exposed to risks inherent in the use of interest rate swaps and forward fuel purchase contracts and the Company may be exposed to additional risks in the future if it utilizes other derivative instruments.

The Company uses interest rate swaps to manage interest rate risk. In addition, the Company uses forward fuel purchase contracts to hedge its limited commodity exposure with respect to the Company's district energy assets. If the Company elects to enter into such commodity hedges, the related asset could recognize financial losses on these arrangements as a result of volatility in the market values of the underlying commodities or if a counterparty fails to perform under a contract. If actively quoted market prices and pricing information from external sources are not available, the valuation of these contracts would involve judgment or the use of estimates. As a result, changes in the underlying assumptions or use of alternative valuation methods could affect the reported fair value of these contracts. If the values of these financial contracts change in a manner that the Company does not anticipate, or if a counterparty fails to perform under a contract, it could harm the business, financial condition, results of operations and cash flows.

The Company's business is subject to restrictions resulting from environmental, health and safety laws and regulations.

The Company is subject to various federal, state and local environmental and health and safety laws and regulations. In addition, the Company may be held primarily or jointly and severally liable for costs relating to the investigation and clean-up of any property where there has been a release or threatened release of a hazardous regulated material as well as other affected properties, regardless of whether the Company knew of or caused the release. In addition to these costs, which are typically not limited by law or regulation and could exceed an affected property's value, the Company could be liable for certain other costs, including governmental fines and injuries to persons, property or natural resources. Further, some environmental laws provide for the creation of a lien on a contaminated site in favor of the government as security for damages and any costs the government incurs in connection with such contamination and associated clean-up. Although the Company generally requires its operators to undertake to indemnify it for environmental liabilities they cause, the amount of such liabilities could exceed the financial ability of the operator to indemnify the Company. The presence of contamination or the failure to remediate contamination may adversely affect the Company's ability to operate the business.

The Company does not own all of the land on which its power generation or thermal assets are located, which could result in disruption to its operations.

The Company does not own all of the land on which its power generation or thermal assets are located and the Company is, therefore, subject to the possibility of less desirable terms and increased costs to retain necessary land use if it does not have valid leases or rights-of-way or if such rights-of-way lapse or terminate. Although the Company has obtained rights to construct and operate these assets pursuant to related lease arrangements, the rights to conduct those activities are subject to certain exceptions, including the term of the lease arrangement. The Company is also at risk of condemnation on land it owns. The loss of these rights, through the Company's inability to renew right-of-way contracts, condemnation or otherwise, may adversely affect the Company's ability to operate its generation and thermal infrastructure assets.

The Company’s use and enjoyment of real property rights for its projects may be adversely affected by the rights of lienholders and leaseholders that are superior to those of the grantors of those real property rights to the Company.

Solar and wind projects generally are, and are likely to be, located on land occupied by the project pursuant to long-term easements and leases. The ownership interests in the land subject to these easements and leases may be subject to mortgages securing loans or other liens (such as tax liens) and other easement and lease rights of third parties (such as leases of oil or mineral rights) that were created prior to the project’s easements and leases. As a result, the project’s rights under these easements or leases may be subject, and subordinate, to the rights of those third parties. The Company performs title searches and obtains title insurance to protect itself against these risks. Such measures may, however, be inadequate to protect the Company against all risk of loss of its rights to use the land on which the wind projects are located, which could have a material adverse effect on the Company’s business, financial condition and results of operations.

The electric generation business is subject to substantial governmental regulation and may be adversely affected by changes in laws or regulations, as well as liability under, or any future inability to comply with, existing or future regulations or other legal requirements.

The Company's electric generation business is subject to extensive U.S. federal, state and local laws and regulations. Compliance with the requirements under these various regulatory regimes may cause the Company to incur significant additional costs, and failure to comply with such requirements could result in the shutdown of the non-complying facility, the imposition of liens, fines, and/or civil or criminal liability. Public utilities under the FPA are required to obtain FERC acceptance of their rate schedules for wholesale sales of electric energy, capacity and ancillary services. Except for generating facilities within the footprint of ERCOT which are regulated by the PUCT, all of the Company’s assets make wholesale sales of electric energy, capacity and ancillary services in interstate commerce and are public utilities for purposes of the FPA, unless otherwise exempt from such status. FERC's orders that grant market-based rate authority to wholesale power sellers reserve the right to revoke or revise that authority if FERC subsequently determines that the seller can exercise market power in transmission or generation, create barriers to entry, or engage in abusive affiliate transactions. In addition, public utilities are subject to FERC reporting requirements that impose administrative burdens and that, if violated, can expose the company to criminal and civil penalties or other risks.

The Company's market-based sales are subject to certain rules prohibiting manipulative or deceptive conduct, and if any of the Company's generating companies with market-based rate authority are deemed to have violated those rules, they could be subject to potential disgorgement of profits associated with the violation, penalties, suspension or revocation of market based rate authority. If such generating companies were to lose their market-based rate authority, such companies would be required to obtain FERC's acceptance of a cost-of-service rate schedule and could become subject to the significant accounting, record-keeping, and reporting requirements that are imposed on utilities with cost-based rate schedules. This could have a material adverse effect on the rates the Company is able to charge for power from its facilities.

Most of the Company's assets are operating as EWGs as defined under the PUHCA, or QFs as defined under the PURPA, as amended, and therefore are exempt from certain regulation under the PUHCA and the PURPA. If a facility fails to maintain its status as an EWG or a QF or there are legislative or regulatory changes revoking or limiting the exemptions to the PUHCA, then the Company may be subject to significant accounting, record-keeping, access to books and records and reporting requirements, and failure to comply with such requirements could result in the imposition of penalties and additional compliance obligations.

Substantially all of the Company's generation assets are also subject to the reliability standards promulgated by the designated Electric Reliability Organization (currently the North American Electric Reliability Corporation, or NERC) and approved by FERC. If the Company fails to comply with the mandatory reliability standards, it could be subject to sanctions, including substantial monetary penalties and increased compliance obligations. The Company will also be affected by legislative and regulatory changes, as well as changes to market design, market rules, tariffs, cost allocations, and bidding rules that occur in the existing regional markets operated by RTOs or ISOs, such as PJM. The RTOs/ISOs that oversee most of the wholesale power markets impose, and in the future may continue to impose, mitigation, including price limitations, offer caps, non-performance penalties and other mechanisms to address some of the volatility and the potential exercise of market power in these markets. These types of price limitations and other regulatory mechanisms may have a material adverse effect on the profitability of the Company's generation facilities acquired in the future that sell energy, capacity and ancillary products into the wholesale power markets. The regulatory environment for electric generation has undergone significant changes in the last several years due to state and federal policies affecting wholesale competition and the creation of incentives for the addition of large amounts of new renewable generation and, in some cases, transmission assets. These changes are ongoing and the Company cannot predict the future design of the wholesale power markets or the ultimate effect that the changing regulatory environment will have on the Company's business. In addition, in some of these markets, interested parties have proposed to re-regulate the markets or require divestiture of electric generation assets by asset owners or operators to reduce their market share. Other proposals to re-regulate may be made and legislative or other attention to the electric power market restructuring process may delay or reverse the deregulation process. If competitive restructuring of the electric power markets is reversed, discontinued, or delayed, the Company's business prospects and financial results could be negatively impacted.

The Company is subject to environmental laws and regulations that impose extensive and increasingly stringent requirements on its operations, as well as potentially substantial liabilities arising out of environmental contamination.

The Company's assets are subject to numerous and significant federal, state and local laws, including statutes, regulations, guidelines, policies, directives and other requirements governing or relating to, among other things: protection of wildlife, including threatened and endangered species; air emissions; discharges into water; water use; the storage, handling, use, transportation and distribution of dangerous goods and hazardous, residual and other regulated materials, such as chemicals; the prevention of releases of hazardous materials into the environment; the prevention, presence and remediation of hazardous materials in soil and groundwater, both on and offsite; land use and zoning matters; and workers' health and safety matters. The Company's facilities could experience incidents, malfunctions and other unplanned events that could result in spills or emissions in excess of permitted levels and result in personal injury, penalties and property damage. As such, the operation of the Company's facilities carries an inherent risk of environmental, health and safety liabilities (including potential civil actions, compliance or remediation orders, fines and other penalties), and may result in the assets being involved from time to time in administrative and judicial proceedings relating to such matters. The Company has implemented environmental, health and safety management programs designed to continually improve environmental, health and safety performance. Environmental laws and regulations have generally become more stringent over time. Significant costs may be incurred for capital expenditures under environmental programs to keep the assets compliant with such environmental laws and regulations. If it is not economical to make those expenditures, it may be necessary to retire or mothball facilities or restrict or modify the Company's operations to comply with more stringent standards. These environmental requirements and liabilities could have a material adverse effect on the business, financial condition, results of operations and cash flows.

The Company's businesses are subject to physical, market and economic risks relating to potential effects of climate change.

Climate change is producing changes in weather and other environmental conditions, including temperature and precipitation levels, and thus may affect consumer demand for electricity. In addition, the potential physical effects of climate change, such as increased frequency and severity of storms, floods and other climatic events, could disrupt the Company's operations and supply chain, and cause them to incur significant costs in preparing for or responding to these effects. These or other meteorological changes could lead to increased operating costs, capital expenses or power purchase costs.

GHG regulation could increase the cost of electricity generated by fossil fuels, and such increases could reduce demand for the power the Company's conventional assets generate and market.

Risks that are beyond the Company's control, including but not limited to acts of terrorism or related acts of war, natural disaster, hostile cyber intrusions or other catastrophic events, could have a material adverse effect on the business, financial condition, results of operations and cash flows.

The Company's generation facilities that were acquired or those that the Company otherwise acquires or constructs and the facilities of third parties on which they rely may be targets of terrorist activities, as well as events occurring in response to or in connection with them, that could cause environmental repercussions and/or result in full or partial disruption of the facilities ability to generate, transmit, transport or distribute electricity or natural gas. Strategic targets, such as energy-related facilities, may be at greater risk of future terrorist activities than other domestic targets. Hostile cyber intrusions, including those targeting information systems as well as electronic control systems used at the generating plants and for the related distribution systems, could severely disrupt business operations and result in loss of service to customers, as well as create significant expense to repair security breaches or system damage.

Furthermore, certain of the Company's power generation and thermal assets are located in active earthquake zones in California and Arizona, and certain project companies and suppliers conduct their operations in the same region or in other locations that are susceptible to natural disasters. In addition, California and some of the locations where certain suppliers are located, from time to time, have experienced shortages of water, electric power and natural gas. The occurrence of a natural disaster, such as an earthquake, wildfire, drought, flood or localized extended outages of critical utilities or transportation systems, or any critical resource shortages, affecting the Company or its suppliers, could cause a significant interruption in the business, damage or destroy the Company's facilities or those of its suppliers or the manufacturing equipment or inventory of the Company's suppliers. Any such terrorist acts, environmental repercussions or disruptions or natural disasters could result in a significant decrease in revenues or significant reconstruction or remediation costs, beyond what could be recovered through insurance policies, which could have a material adverse effect on the business, financial condition, results of operations and cash flows.

The operation of the Company’s businesses is subject to cyber-based security and integrity risk.

Numerous functions affecting the efficient operation of the Company’s businesses depend on the secure and reliable storage, processing and communication of electronic data and the use of sophisticated computer hardware and software systems. The operation of the Company's generating assets rely on cyber-based technologies and, therefore, subject to the risk that such systems could be the target of disruptive actions, particularly through cyber-attack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, or otherwise be compromised by unintentional events. As a result, operations could be interrupted, property could be damaged and sensitive customer information could be lost or stolen, causing the Company to incur significant losses of revenues, other substantial liabilities and damages, costs to replace or repair damaged equipment and damage to the Company's reputation. In addition, the Company may experience increased capital and operating costs to implement increased security for its cyber systems and generating assets.

Government regulations providing incentives for renewable generation could change at any time and such changes may negatively impact the Company's growth strategy.

The Company's growth strategy depends in part on government policies that support renewable generation and enhance the economic viability of owning renewable electric generation assets. Renewable generation assets currently benefit from various federal, state and local governmental incentives such as ITCs, cash grants in lieu of ITCs, loan guarantees, RPS, programs, modified accelerated cost-recovery system of depreciation and bonus depreciation. In December 2015, the U.S. Congress enacted an extension of the 30% solar ITC so that projects that began construction in 2016 through 2019 will continue to qualify for the 30% ITC. Projects beginning construction in 2020 and 2021 will be eligible for the ITC at the rates of 26% and 22%, respectively. The same legislation also extended the 10-year wind PTC for wind projects that began construction in years 2016 through 2019. Wind projects that began construction in 2018 and or begin construction in 2019 are eligible for PTC at 60% and 40% of the statutory rate per kWh, respectively.

Many states have adopted RPS programs mandating that a specified percentage of electricity sales come from eligible sources of renewable energy. However, the regulations that govern the RPS programs, including pricing incentives for renewable energy, or reasonableness guidelines for pricing that increase valuation compared to conventional power (such as a projected value for carbon reduction or consideration of avoided integration costs), may change. If the RPS requirements are reduced or eliminated, it could lead to fewer future power contracts or lead to lower prices for the sale of power in future power contracts, which could have a material adverse effect on the Company's future growth prospects. Such material adverse effects may result from decreased revenues, reduced economic returns on certain project company investments, increased financing costs, and/or difficulty obtaining financing. Furthermore, the ARRA included incentives to encourage investment in the renewable energy sector, such as cash grants in lieu of ITCs, bonus depreciation and expansion of the U.S. DOE loan guarantee program. It is uncertain what loan guarantees may be made by the U.S. DOE loan guarantee program in the future.

If the Company is unable to utilize various federal, state and local government incentives to acquire additional renewable assets in the future, or the terms of such incentives are revised in a manner that is less favorable to the Company, it may suffer a material adverse effect on the business, financial condition, results of operations and cash flows.

The Company relies on electric distribution and transmission facilities that it does not own or control and that are subject to transmission constraints within a number of the Company's regions. If these facilities fail to provide the Company with adequate transmission capacity, it may be restricted in its ability to deliver electric power to its customers and may either incur additional costs or forego revenues.

The Company depends on electric distribution and transmission facilities owned and operated by others to deliver the wholesale power it will sell from its electric generation assets to its customers. A failure or delay in the operation or development of these facilities or a significant increase in the cost of the development of such facilities could result in lost revenues. Such failures or delays could limit the amount of power the Company's operating facilities deliver or delay the completion of the Company's construction projects. Additionally, such failures, delays or increased costs could have a material adverse effect on the business, financial condition and results of operations. If a region's power transmission infrastructure is inadequate, the Company's recovery of wholesale costs and profits may be limited. If restrictive transmission price regulation is imposed, the transmission companies may not have a sufficient incentive to invest in expansion of transmission infrastructure. The Company also cannot predict whether distribution or transmission facilities will be expanded in specific markets to accommodate competitive access to those markets. In addition, certain of the Company's operating facilities' generation of electricity may be curtailed without compensation due to transmission limitations or limitations on the electricity grid's ability to accommodate intermittent electricity generating sources, reducing the Company's revenues and impairing its ability to capitalize fully on a particular facility's generating potential. Such curtailments could have a material adverse effect on the business, financial condition, results of operations and cash flows. Furthermore, economic congestion on transmission networks in certain of the markets in which the Company operates may occur and the Company may be deemed responsible for congestion costs. If the Company were liable for such congestion costs, its financial results could be adversely affected.

The Company's costs, results of operations, financial condition and cash flows could be adversely impacted by the disruption of the fuel supplies necessary to generate power at its conventional and thermal power generation facilities.

Delivery of fossil fuels to fuel the Company's conventional and thermal generation facilities is dependent upon the infrastructure (including natural gas pipelines) available to serve each such generation facility as well as upon the continuing financial viability of contractual counterparties. As a result, the Company is subject to the risks of disruptions or curtailments in the production of power at these generation facilities if a counterparty fails to perform or if there is a disruption in the fuel delivery infrastructure.

If the Company is deemed to be an investment company, the Company may be required to institute burdensome compliance requirements and the Company's activities may be restricted, which may make it difficult for the Company to complete strategic acquisitions or effect combinations.

If the Company is deemed to be an investment company under the Investment Company Act of 1940, or the Investment Company Act, the Company's business would be subject to applicable restrictions under the Investment Company Act, which could make it impracticable for the Company to continue its business as contemplated.

The Company believes it is not an investment company under Section 3(b)(1) of the Investment Company Act because the Company is primarily engaged in a non-investment company business. The Company intends to conduct its operations so that the Company will not be deemed an investment company. However, if the Company were to be deemed an investment company, restrictions imposed by the Investment Company Act, including limitations on the Company's capital structure and the Company's ability to transact with affiliates, could make it impractical for the Company to continue its business as contemplated.

The Company depends on key personnel, the loss of any of which could have a material adverse effect on the Company's financial condition and results of operations.

The Company believes its current operations and future success depend largely on the continued services of key personnel that it employs. Although the Company currently has access to the resources of CEG, the loss of key personnel employed by the Company could have a material adverse effect on the Company's financial condition and results of operations.

Risks Related to the Company's Relationships with GIP and CEG

GIP, through its ownership of CEG, exercises substantial influence over the Company through its position as controlling shareholder of Clearway, Inc. The Company is highly dependent on GIP.

GIP, through its ownership of CEG, owns all of the outstanding Class B and Class D common stock of Clearway, Inc. and owns 55.0% of the combined voting power of Clearway, Inc. as of December 31, 2018. As a result of GIP's ownership of Clearway, Inc. and Clearway, Inc.'s position as sole managing member of the Company, GIP has a substantial influence on the Company's affairs and its voting power will constitute a large percentage of any quorum of Clearway, Inc.'s stockholders voting on any matter requiring the approval of its stockholders. Such matters include the approval of mergers or sale of all or substantially all of its assets. This concentration of ownership may also have the effect of delaying or preventing a change in control of Clearway, Inc. or discouraging others from making tender offers for their shares. In addition, GIP has the right to elect all of Clearway, Inc.'s directors. GIP may cause corporate actions to be taken even if their interests conflict with the interests of Clearway, Inc.'s other stockholders (including holders of Clearway, Inc.'s Class A and Class C common stock).

Furthermore, the Company depends on certain services provided by or under the direction of CEG under the CEG Master Services Agreement. CEG personnel and support staff that provide services to the Company under the CEG Master Services Agreement are not required to, and the Company does not expect that they will, have as their primary responsibility the management and administration of the Company or to act exclusively for the Company and the CEG Master Services Agreement does not require any specific individuals to be provided by CEG. Under the CEG Master Services Agreement, CEG has the discretion to determine which of its employees perform assignments required to be provided to the Company. Any failure to effectively manage the Company's operations or to implement its strategy could have a material adverse effect on the business, financial condition, results of operations and cash flows. The CEG Master Services Agreement will continue in perpetuity, until terminated in accordance with its terms.

The Company also depends upon CEG and NRG for the provision of management, administration and certain other services at certain of the Company's facilities. Any failure by CEG or NRG to perform its requirements under these arrangements or the failure by the Company to identify and contract with replacement service providers, if required, could adversely affect the operation of the Company's facilities and have a material adverse effect on the business, financial condition, results of operations and cash flows.

In connection with the GIP Transaction, GIP has agreed to enter into certain agreements with the Company relating to the provision of services and NRG has agreed to enter into certain agreements with the Company relating to transition services and ongoing commercial arrangements. It is uncertain whether, after the transition services end, GIP or its affiliates will continue to provide the same services, or offer the same capabilities and resources, to the Company that the Company currently receives from NRG or whether the Company may have to seek alternative service providers. The Company may not be able to replicate the same level of services, capabilities, experience and familiarity with the Company's business offered by NRG either through GIP or through alternative service providers or on terms or costs similar to those provided by NRG. The loss of services provided by NRG and the benefits offered to the Company through its relationship with NRG could have an impact on the Company's business, financial condition, results of operations and cash flows.

GIP and its affiliates control the Company and have the ability to designate a majority of the members of Clearway Energy, Inc.'s Board.

The governance agreements entered into among NRG, Clearway Energy, Inc., GIP and its affiliates in connection with the GIP Transaction provide GIP the ability to designate a majority of Clearway Energy, Inc.'s Board to the Company's Corporate Governance, Conflicts and Nominating Committee for nomination for election by Clearway Energy, Inc.'s stockholders and also require that the Company and GIP use their commercially reasonable efforts to submit to Clearway Energy, Inc.'s stockholders at Clearway Energy, Inc.'s 2019 Annual Meeting of Stockholders a charter amendment to classify Clearway Energy, Inc.'s Board into two classes (with the independent directors and directors designated by GIP allocated across the two classes). Due to such agreements and GIP's approximate 55.0% combined voting power in Clearway Energy, Inc., the ability of other holders of Clearway Energy, Inc.'s Class A and Class C common stock to exercise control over the corporate governance of the Company will be limited. In addition, due to its approximate 55.0% combined voting power in the Company, GIP and its affiliates have a substantial influence on Clearway Energy, Inc.'s affairs and its voting power constitutes a large percentage of any quorum of Clearway Energy, Inc.'s stockholders voting on any matter requiring the approval of Clearway Energy, Inc.'s stockholders, including the classification of Clearway Energy, Inc.'s Board of Directors. GIP and its affiliates may hold certain interests that are different from those of the Company or other holders of Clearway Energy, Inc.'s Class A and Class C common stock and there is no assurance that GIP and its affiliates will exercise its control over the Company in a manner that is consistent with the Company's interests or those of the holders of Clearway Energy, Inc.'s Class A and Class C common stock.

The Company may not be able to consummate future acquisitions from CEG.

The Company's ability to grow through acquisitions depends, in part, on CEG's ability to identify and present the Company with acquisition opportunities. Although CEG has agreed to grant the Company a right of first offer with respect to certain power generation assets that CEG may elect to sell in the future, CEG is under no obligation to sell any such power generation assets or to accept any related offers from the Company. In addition, CEG has not agreed to commit any minimum level of dedicated resources for the pursuit of renewable power-related acquisitions. There are a number of factors which could materially and adversely impact the extent to which suitable acquisition opportunities are made available from CEG, including that the same professionals within CEG's organization that are involved in acquisitions that are suitable for the Company have responsibilities within CEG's broader asset management business, which may include sourcing acquisition opportunities for CEG. Limits on the availability of such individuals will likewise result in a limitation on the availability of acquisition opportunities for the Company. In making these determinations, CEG may be influenced by factors that result in a misalignment with the Company's interests or conflict of interest.

The Company may be unable or unwilling to terminate the CEG Master Services Agreement.

The CEG Master Services Agreement provides that the Company may terminate the agreement upon 30 days prior written notice to CEG upon the occurrence of any of the following: (i) CEG defaults in the performance or observance of any material term, condition or covenant contained therein in a manner that results in material harm to the Company and the default continues unremedied for a period of 30 days after written notice thereof is given to CEG; (ii) CEG engages in any act of fraud, misappropriation of funds or embezzlement that results in material harm to the Company; (iii) CEG is grossly negligent in the performance of its duties under the agreement and such negligence results in material harm to the Company; or (iv) upon the happening of certain events relating to the bankruptcy or insolvency of CEG. Furthermore, if the Company requests an amendment to the scope of services provided by CEG under the CEG Master Services Agreement and is not able to agree with CEG as to a change to the service fee resulting from a change in the scope of services within 180 days of the request, the Company will be able to terminate the agreement upon 30 days prior notice to CEG. The Company will not be able to terminate the agreement for any other reason, including if CEG experiences a change of control, and the agreement continues in perpetuity, until terminated in accordance with its terms.

If CEG terminates the CEG Master Services Agreement or defaults in the performance of its obligations under the agreement, or if the transition services to be provided by NRG to the Company are inadequate or end, the Company may be unable to contract with a substitute service provider on similar terms, or at all.

The Company relies on CEG to provide certain services under the CEG Master Services Agreement. The CEG Master Services Agreement provides that CEG may terminate the agreement upon 180 days prior written notice of termination to the Company if it defaults in the performance or observance of any material term, condition or covenant contained in the agreement in a manner that results in material harm and the default continues unremedied for a period of 30 days after written notice of the breach is given. If CEG terminates the Management Services Agreement or defaults in the performance of its obligations under the agreement, the Company may be unable to contract with CEG or a substitute service provider on similar terms or at all, and the costs of substituting service providers may be substantial. In addition, in light of CEG's familiarity with the Company's assets, a substitute service provider may not be able to provide the same level of service due to lack of pre-existing synergies. Additionally, the Company relies on transition services provided by NRG under the NRG TSA. If the Company cannot locate a service provider that is able to provide substantially similar services as CEG does under the CEG Master Services Agreement, or the services provided by NRG under the NRG TSA, on similar terms, it could have a material adverse effect on the business, financial condition, results of operation and cash flows.

The liability of CEG is limited under the Company's arrangements with it and the Company has agreed to indemnify CEG against claims that it may face in connection with such arrangements, which may lead CEG to assume greater risks when making decisions relating to the Company than it otherwise might if acting solely for its own account.

Under the CEG Master Services Agreement, CEG does not assume any responsibility other than to provide or arrange for the provision of the services described in the CEG Master Services Agreement in good faith. In addition, under the CEG Master Services Agreement, the liability of CEG and its affiliates is limited to the fullest extent permitted by law to conduct involving bad faith, fraud, willful misconduct or gross negligence or, in the case of a criminal matter, action that was known to have been unlawful. In addition, the Company has agreed to indemnify CEG to the fullest extent permitted by law from and against any claims, liabilities, losses, damages, costs or expenses incurred by an indemnified person or threatened in connection with the Company's operations, investments and activities or in respect of or arising from the CEG Master Services Agreement or the services provided by CEG, except to the extent that the claims, liabilities, losses, damages, costs or expenses are determined to have resulted from the conduct in respect of which such persons have liability as described above. These protections may result in CEG tolerating greater risks when making decisions than otherwise might be the case, including when determining whether to use leverage in connection with acquisitions. The indemnification arrangements to which CEG is a party may also give rise to legal claims for indemnification that are adverse to the Company and holders of its common stock.

Certain of the Company's PPAs and project-level financing arrangements include provisions that would permit the counterparty to terminate the contract or accelerate maturity in the event GIP or its affiliates ceases to control or own, directly or indirectly, a majority of the voting power of the Company.

Certain of the Company's PPAs and project-level financing arrangements contain change in control provisions that provide the counterparty with a termination right or the ability to accelerate maturity in the event of a change of control of the Company without the counterparty's consent. These provisions are triggered in the event GIP or its affiliates ceases to own, directly or indirectly, capital stock representing more than 50% of the voting power of the Company's capital stock outstanding on such date, or, in some cases, if GIP or its affiliates ceases to be the majority owner, directly or indirectly, of the applicable project subsidiary. As a result, if GIP or its affiliates ceases to control, or in some cases, own a majority of the voting power of the Company, the counterparties could terminate such contracts or accelerate the maturity of such financing arrangements. The termination of any of the Company's PPAs or the acceleration of the maturity of any of the Company's project-level financing could have a material adverse effect on the Company's business, financial condition, results of operations and cash flow.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Annual Report on Form 10-K of Clearway Energy LLC, together with its consolidated subsidiaries, or the Company, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words "believes," "projects," "anticipates," "plans," "expects," "intends," "estimates" and similar expressions are intended to identify forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These factors, risks and uncertainties include the factors described under Item 1A — *Risk Factors* and the following:

- Potential risks related to the PG&E bankruptcy;
- The Company's ability to maintain and grow its quarterly distributions;
- Potential risks related to the Company's relationships with GIP and CEG;
- The Company's ability to successfully identify, evaluate and consummate acquisitions from third parties;
- The Company's ability to acquire assets from GIP or CEG;
- The Company's ability to raise additional capital due to its indebtedness, corporate structure, market conditions or otherwise;
- Changes in law, including judicial decisions;
- Hazards customary to the power production industry and power generation operations such as fuel and electricity price volatility, unusual weather conditions (including wind and solar conditions), catastrophic weather-related or other damage to facilities, unscheduled generation outages, maintenance or repairs, unanticipated changes to fuel supply costs or availability due to higher demand, shortages, transportation problems or other developments, environmental incidents, or electric transmission or gas pipeline system constraints and the possibility that the Company may not have adequate insurance to cover losses as a result of such hazards;
- The Company's ability to operate its businesses efficiently, manage maintenance capital expenditures and costs effectively, and generate earnings and cash flows from its asset-based businesses in relation to its debt and other obligations;
- The willingness and ability of counterparties to the Company's offtake agreements to fulfill their obligations under such agreements;
- The Company's ability to enter into contracts to sell power and procure fuel on acceptable terms and prices as current offtake agreements expire;
- Government regulation, including compliance with regulatory requirements and changes in market rules, rates, tariffs and environmental laws;
- Operating and financial restrictions placed on the Company that are contained in the project-level debt facilities and other agreements of certain subsidiaries and project-level subsidiaries generally, in the Clearway Energy Operating LLC amended and restated revolving credit facility and in the indentures governing the Senior Notes;
- Cyber terrorism and inadequate cybersecurity, or the occurrence of a catastrophic loss and the possibility that the Company may not have adequate insurance to cover losses resulting from such hazards or the inability of the Company's insurers to provide coverage;
- The Company's ability to engage in successful mergers and acquisitions activity; and
- The Company's ability to borrow additional funds and access capital markets, as well as the Company's substantial indebtedness and the possibility that the Company may incur additional indebtedness going forward.

Forward-looking statements speak only as of the date they were made, and the Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The foregoing review of factors that could cause the Company's actual results to differ materially from those contemplated in any forward-looking statements included in this Annual Report on Form 10-K should not be construed as exhaustive.

Item 1B — Unresolved Staff Comments

None.

Item 2 — Properties

Listed below are descriptions of the Company's interests in facilities, operations and/or projects owned or leased as of December 31, 2018.

		Capacity					PPA Terms	
Assets	Location	Rated MW	Net MW[(a)]	Owner-ship	Fuel	COD	Counterparty	Expiration
Conventional								
El Segundo	El Segundo, CA	550	550	100%	Natural Gas	August 2013	Southern California Edison	2023
GenConn Devon	Milford, CT	190	95	50%	Natural Gas/Oil	June 2010	Connecticut Light & Power	2040
GenConn Middletown	Middletown, CT	190	95	50%	Natural Gas/Oil	June 2011	Connecticut Light & Power	2041
Marsh Landing	Antioch, CA	720	720	100%	Natural Gas	May 2013	Pacific Gas and Electric	2023
Walnut Creek	City of Industry, CA	485	485	100%	Natural Gas	May 2013	Southern California Edison	2023
Total Conventional		2,135	1,945					
Utility Scale Solar								
Agua Caliente	Dateland, AZ	290	46	16%	Solar	June 2014	Pacific Gas and Electric	2039
Alpine	Lancaster, CA	66	66	100%	Solar	January 2013	Pacific Gas and Electric	2033
Avenal	Avenal, CA	45	23	50%	Solar	August 2011	Pacific Gas and Electric	2031
Avra Valley	Pima County, AZ	26	26	100%	Solar	December 2012	Tucson Electric Power	2032
Blythe	Blythe, CA	21	21	100%	Solar	December 2009	Southern California Edison	2029
Borrego	Borrego Springs, CA	26	26	100%	Solar	February 2013	San Diego Gas and Electric	2038
Buckthorn Solar	City of Georgetown, TX	154	154	100%	Solar	July 2018	City of Georgetown, TX	2043
CVSR	San Luis Obispo, CA	250	250	100%	Solar	October 2013	Pacific Gas and Electric	2038
Desert Sunlight 250	Desert Center, CA	250	63	25%	Solar	December 2014	Southern California Edison	2034
Desert Sunlight 300	Desert Center, CA	300	75	25%	Solar	December 2014	Pacific Gas and Electric	2039
Four Brothers Solar	New Castle/Milford, UT	320	160	50%	Solar	July 2016 - August 2016	PacifiCorp	2036
Granite Mountain	Cedar City, UT	130	65	50%	Solar	September 2016	PacifiCorp	2036
Iron Springs	Cedar City, UT	80	40	50%	Solar	August 2016	PacifiCorp	2036
Kansas South	Lemoore, CA	20	20	100%	Solar	June 2013	Pacific Gas and Electric	2033
Roadrunner	Santa Teresa, NM	20	20	100%	Solar	August 2011	El Paso Electric	2031
TA High Desert	Lancaster, CA	20	20	100%	Solar	March 2013	Southern California Edison	2033
Total Utility Scale Solar		2,018	1,075					
Distributed Solar								
Apple I LLC Projects	CA	9	9	100%	Solar	October 2012 - December 2012	Various	2032
AZ DG Solar Projects	AZ	5	5	100%	Solar	December 2010 - January 2013	Various	2025 - 2033
SPP Projects	Various	25	25	100%	Solar	June 2008 - June 2012	Various	2026 - 2037
Other DG Projects	Various	13	13	100%	Solar	October 2012 - October 2015	Various	2023 - 2039
Total Distributed Solar		52	52					
Wind								

Assets	Location	Capacity		Owner-ship	Fuel	COD	PPA Terms	
		Rated MW	Net MW[(a)]				Counterparty	Expiration
Alta I	Tehachapi, CA	150	150	100%	Wind	December 2010	Southern California Edison	2035
Alta II	Tehachapi, CA	150	150	100%	Wind	December 2010	Southern California Edison	2035
Alta III	Tehachapi, CA	150	150	100%	Wind	February 2011	Southern California Edison	2035
Alta IV	Tehachapi, CA	102	102	100%	Wind	March 2011	Southern California Edison	2035
Alta V	Tehachapi, CA	168	168	100%	Wind	April 2011	Southern California Edison	2035
Alta X [(b)]	Tehachapi, CA	137	137	100%	Wind	February 2014	Southern California Edison	2038
Alta XI [(b)]	Tehachapi, CA	90	90	100%	Wind	February 2014	Southern California Edison	2038
Buffalo Bear	Buffalo, OK	19	19	100%	Wind	December 2008	Western Farmers Electric Co-operative	2033
Crosswinds [(b)]	Ayrshire, IA	21	21	99%	Wind	June 2007	Corn Belt Power Cooperative	2027
Elbow Creek [(b)]	Howard County, TX	122	122	100%	Wind	December 2008	NRG Power Marketing LLC	2022
Elkhorn Ridge [(b)]	Bloomfield, NE	81	54	66.7%	Wind	March 2009	Nebraska Public Power District	2029
Forward [(b)]	Berlin, PA	29	29	100%	Wind	April 2008	Constellation NewEnergy, Inc.	2022
Goat Wind [(b)]	Sterling City, TX	150	150	100%	Wind	April 2008/June 2009	Dow Pipeline Company	2025
Hardin [(b)]	Jefferson, IA	15	15	99%	Wind	May 2007	Interstate Power and Light Company	2027
Laredo Ridge	Petersburg, NE	80	80	100%	Wind	February 2011	Nebraska Public Power District	2031
Lookout [(b)]	Berlin, PA	38	38	100%	Wind	October 2008	Southern Maryland Electric Cooperative	2030
Odin [(b)]	Odin, MN	20	20	99.9%	Wind	June 2008	Missouri River Energy Services	2028
Pinnacle	Keyser, WV	55	55	100%	Wind	December 2011	Maryland Department of General Services and University System of Maryland	2031
San Juan Mesa [(b)]	Elida, NM	120	90	75%	Wind	December 2005	Southwestern Public Service Company	2025
Sleeping Bear [(b)]	Woodward, OK	95	95	100%	Wind	October 2007	Public Service Company of Oklahoma	2032
South Trent	Sweetwater, TX	101	101	100%	Wind	January 2009	AEP Energy Partners	2029
Spanish Fork [(b)]	Spanish Fork, UT	19	19	100%	Wind	July 2008	PacifiCorp	2028
Spring Canyon II [(b)]	Logan County, CO	32	29	90.1%	Wind	October 2014	Platte River Power Authority	2039
Spring Canyon III[(b)]	Logan County, CO	28	25	90.1%	Wind	December 2014	Platte River Power Authority	2039
Taloga	Putnam, OK	130	130	100%	Wind	July 2011	Oklahoma Gas & Electric	2031
Wildorado [(b)]	Vega, TX	161	161	100%	Wind	April 2007	Southwestern Public Service Company	2027
Total Wind		2,263	2,200					
Thermal Generation								

Assets	Location	Capacity Rated MW	Capacity Net MW[(a)]	Owner-ship	Fuel	COD	PPA Terms Counterparty	PPA Terms Expiration
CA Fuel Cell	Tulare, CA	3	3	100%	Natural Gas	May 2018	City of Tulare	2038
Dover	Dover, DE	103	103	100%	Natural Gas	June 2013	NRG Power Marketing LLC	2018
Energy Center - Pittsburgh	Pittsburgh, PA	7	7	100%	Diesel	January 2019	University of Pittsburgh Medical Center	2038
Paxton Creek Cogen	Harrisburg, PA	12	12	100%	Natural Gas	November 1986	Power sold into PJM markets	
Princeton Hospital	Princeton, NJ	5	5	100%	Natural Gas	January 2012	Excess power sold to local utility	
Tucson Convention Center	Tucson, AZ	2	2	100%	Natural Gas	January 2003	Excess power sold to local utility	
University of Bridgeport	Bridgeport, CT	1	1	100%	Natural Gas	April 2015	University of Bridgeport	2034
Total Thermal Generation		133	133					
Total Clearway Energy LLC [(c)]		6,601	5,405					

[(a)] Net capacity represents the maximum, or rated, generating capacity of the facility multiplied by the Company's percentage ownership in the facility as of December 31, 2018.
[(b)] Projects are part of tax equity arrangements, as further described in Note 2, *Summary of Significant Accounting Policies.*
[(c)] Clearway Energy LLC's total generation capacity is net of 6 MWs for noncontrolling interest for Spring Canyon II and III. Clearway Energy LLC's generation capacity including this noncontrolling interest was 5,411 MWs.

In addition to the facilities owned or leased in the table above, the Company entered into partnerships to own or purchase solar power generation projects, as well as other ancillary related assets from a related party via intermediate funds. The Company does not consolidate these partnerships and accounts for them as equity method investments. The Company's net interest in these projects is 268 MW based on cash to be distributed. For further discussions, refer to Item 15 — Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities* to the Consolidated Financial Statements.

The following table summarizes the Company's thermal steam and chilled water facilities as of December 31, 2018:

Name and Location of Facility	Thermal Energy Purchaser	% Owned	Rated Megawatt Thermal Equivalent Capacity (MWt)	Net Megawatt Thermal Equivalent Capacity (MWt)	Generating Capacity
Energy Center Minneapolis, MN	Approx. 95 steam and 55 chilled water customers	100	315 136	315 136	Steam: 1,075 MMBtu/hr. Chilled water: 38,700 tons
Energy Center San Francisco, CA	Approx. 180 steam customers	100	133	133	Steam: 454 MMBtu/hr.
Energy Center Omaha, NE	Approx. 60 steam and 65 chilled water customers	100 16[(a)] 100 0[(a)]	142 56 77 21	142 9 77 0	Steam: 485 MMBtu/hr Steam: 190 MMBtu/hr Chilled water: 22,000 tons Chilled water: 6,000 tons
Energy Center Harrisburg, PA	Approx. 125 steam and 5 chilled water customers	100	108 13	108 13	Steam: 370 MMBtu/hr. Chilled water: 3,600 tons
Energy Center Phoenix, AZ	Approx. 40 chilled water customers	24[(a)] 100 12[(a)] 0[(a)]	5 104 14 28	1 104 2 0	Steam: 17 MMBtu/hr Chilled water: 29,600 tons Chilled water: 3,920 tons Chilled water: 8,000 tons
Energy Center Pittsburgh, PA	Approx. 25 steam and 25 chilled water customers	100	132 78	132 78	Steam: 452 MMBtu/hr. Chilled water: 22,224 tons
Energy Center San Diego, CA	Approx. 20 chilled water customers	100	31	31	Chilled water: 8,825 tons
Energy Center Dover, DE	Kraft Heinz Company; Proctor and Gamble	100	66	66	Steam: 225 MMBtu/hr.
Energy Center Princeton, NJ	Princeton HealthCare System	100	21 17	21 17	Steam: 72 MMBtu/hr. Chilled water: 4,700 tons
	Total Generating Capacity (MWt)		1,497	1,385	

[a] Net MWt capacity excludes 112 MWt available under the right-to-use provisions contained in agreements between two of the Company's thermal facilities and certain of its customers.

Item 3 — Legal Proceedings

See "Pacific Gas and Electric Company Bankruptcy" found in Item 1, Business, of this Annual Report on Form 10-K and Item 15 — Note 14, *Commitments and Contingencies*, to the Consolidated Financial Statements for discussion of the material legal proceedings to which the Company is a party or of which any of its properties is subject.

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 and Holders

As of the date of this report, there is no publicly-traded market for the Company's membership units. All of the Company's Class A and Class C units are held by Clearway Energy, Inc. and all of the Company's Class B and Class D units are held by CEG.

Distributions

The following table lists the distributions paid on the Company's Class A, Class B, Class C and Class D units during the year ended December 31, 2018:

	Fourth Quarter 2018	Third Quarter 2018	Second Quarter 2018	First Quarter 2016
Distributions per Class A and Class B unit	$ 0.331	$ 0.320	$ 0.309	$ 0.298
Distributions per Class C and Class D unit	$ 0.331	$ 0.320	$ 0.309	$ 0.298

On February 12, 2019, the Company declared a quarterly distribution on its Class A, Class B, Class C and Class D units of $0.20 per unit payable on March 15, 2019.

Item 6 — Selected Financial Data

The following table presents the Company's historical selected financial data, which has been recast to include the Buckthorn Solar Drop Down Asset, as if the transfer had taken place at the beginning of the common control, which was November 9, 2016. The drop down is further described in Item 15 — Note 3, *Business Acquisitions*, to the Consolidated Financial Statements.

This historical data should be read in conjunction with the Consolidated Financial Statements and the related notes thereto in Item 15 and Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*.

	Fiscal year ended December 31,				
(In millions)	**2018**	**2017**	**2016**	**2015**	**2014**
Statement of Income Data:					
Operating Revenues					
Total operating revenues	$ 1,053	$ 1,009	$ 1,035	$ 968	$ 844
Operating Costs and Expenses					
Cost of operations	332	326	308	323	279
Depreciation and amortization	331	334	303	303	240
Impairment losses	—	44	185	1	—
General and administrative	20	19	14	10	8
Acquisition-related transaction and integration costs	20	3	1	3	4
Development costs	3	—	—	—	—
Total operating costs and expenses	706	726	811	640	531
Operating Income	347	283	224	328	313
Other Income (Expense)					
Equity in earnings of unconsolidated affiliates	74	71	60	31	22
Other income, net	8	4	3	3	6
Loss on debt extinguishment	(7)	(3)	—	(9)	(1)
Interest expense	(294)	(294)	(272)	(258)	(217)
Total other expense, net	(212)	(222)	(209)	(233)	(190)
Net Income	135	61	15	$ 95	$ 123
Less: Net (loss) income attributable to noncontrolling interests	(105)	(75)	(111)	(62)	9
Net Income Attributable to Clearway Energy LLC	$ 240	$ 136	$ 126	$ 157	$ 114
Other Financial Data:					
Capital expenditures	$ 83	$ 190	$ 20	$ 29	$ 79
Cash Flow Data:					
Net cash provided by (used in):					
Operating activities	$ 492	$ 517	$ 577	$ 424	$ 363
Investing activities	(185)	(442)	(131)	(1,098)	(760)
Financing activities	(38)	(258)	(202)	354	767
Balance Sheet Data (at period end):					
Cash and cash equivalents	$ 407	$ 146	$ 321	$ 110	$ 430
Property, plant and equipment, net	5,245	5,410	5,579	5,980	6,119
Total assets	8,448	8,360	8,772	8,759	8,930
Long-term debt, including current maturities	5,762	6,006	6,069	5,692	5,828
Total liabilities	6,266	6,331	6,384	6,054	6,173
Total members' equity	2,182	2,029	2,388	2,705	2,757

Item 7 — Management's Discussion and Analysis of Financial Condition and the Results of Operations

The following discussion analyzes the Company's historical financial condition and results of operations, which have been recast to include the Buckthorn Solar Drop Down Asset, as if the transfer had taken place at the beginning of the common control, which was November 9, 2016. As further discussed in Item 15 — Note 1, *Nature of Business*, to the Consolidated Financial Statements, the purchases of these assets were accounted for in accordance with ASC 805-50*, Business Combinations - Related Issues*, whereas the assets and liabilities transferred to the Company relate to interests under common control by NRG and, accordingly, were recorded at historical cost. The difference between the cash proceeds and historical value of the net assets was recorded as a distribution to/from NRG and offset to the noncontrolling interest on the Company's consolidated balance sheet. In accordance with GAAP, the Company prepares its consolidated financial statements to reflect the transfers as if they had taken place from the beginning of the financial statements period, or from the date the entities were under common control (if later than the beginning of the financial statements period).

As you read this discussion and analysis, refer to the Company's Consolidated Statements of Operations to this Form 10-K, which present the results of operations for the years ended December 31, 2018, 2017 and 2016. Also refer to Item 1 — *Business* and Item 1A — *Risk Factors*, which include detailed discussions of various items impacting the Company's business, results of operations and financial condition.

The discussion and analysis below has been organized as follows:

- Executive Summary, including a description of the business and significant events that are important to understanding the results of operations and financial condition;
- Results of operations, including an explanation of significant differences between the periods in the specific line items of the consolidated statements of operations;
- Financial condition addressing liquidity position, sources and uses of cash, capital resources and requirements, commitments, and off-balance sheet arrangements;
- Known trends that may affect the Company’s results of operations and financial condition in the future; and
- Critical accounting policies which are most important to both the portrayal of the Company's financial condition and results of operations, and which require management's most difficult, subjective or complex judgment.

Executive Summary

Introduction and Overview

Clearway Energy LLC, together with its consolidated subsidiaries, or the Company, is an energy infrastructure investor in and owner of modern, sustainable and long-term contracted assets across North America. The Company is sponsored by GIP through GIP's portfolio company, CEG.

The Company's environmentally-sound asset portfolio includes over 5,272 MW of wind, solar and natural gas-fired power generation facilities, as well as district energy systems. Nearly all of these assets sell substantially all of their output pursuant to long-term offtake agreements with creditworthy counterparties. The weighted average remaining contract duration of these offtake agreements was approximately 15 years as of December 31, 2018 based on CAFD. The Company also owns thermal infrastructure assets with an aggregate steam and chilled water capacity of 1,385 net MWt and electric generation capacity of 133 net MW. These thermal infrastructure assets provide steam, hot and/or chilled water, and, in some instances, electricity to commercial businesses, universities, hospitals and governmental units in multiple locations, principally through long-term contracts or pursuant to rates regulated by state utility commissions.

Significant Events

Pacific Gas and Electric Company Bankruptcy

- On January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code in the U.S. Bankruptcy Court for the Northern District of California. Certain subsidiaries of the Company, which hold interests in 6 solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW, sell the output of their facilities to PG&E under long-term PPAs. The Company consolidates three of the solar facilities and Marsh Landing, and records its interest in the other solar facilities as equity method investments. As of December 31, 2018, the Company had $1.5 billion of property, plant and equipment, net, $352 million investments in unconsolidated affiliates and $1.4 billion of long - term debt related to these facilities. The related subsidiaries of the Company have entered into financing agreements consisting of non-recourse project level debt and, in certain cases, non-recourse holding company debt. The PG&E bankruptcy filing has triggered defaults under the PPAs with PG&E and such related financing agreements. The Company is currently negotiating forbearance agreements with the lenders for each respective financing arrangement. The Company continues to assess the potential future impacts of the PG&E bankruptcy filing as events occur, however, no impact to the Company's immediate operating activities has occurred as of December 31, 2018.

Distribution Reduction

- On February 12, 2019, and as a result of impacts related to the PG&E Bankruptcy, Clearway, Inc.'s Board of Directors declared a quarterly dividend on Class A and Class C common stock of $0.20 per share payable on March 15, 2019, to stockholders of record as of March 1, 2019. This dividend is reduced from the last quarterly dividend paid in December 2018 of $0.331 per share. A similar decrease was made to the Company's distributions to unitholders. The Company will continue to assess the level of the distribution pending developments in the PG&E bankruptcy, including the Company's ability to receive unrestricted project distributions.

Forgoing Agua Caliente Drop Down

- On November 1, 2018, NRG offered the Company the opportunity to acquire Agua Caliente Borrower 1 LLC, which owns a 35% interest in Agua Caliente, a 290 MW utility-scale solar project located in Dateland, Arizona with PG&E as the project's customer. Pursuant to the terms of the NRG ROFO Agreement, the Company elected to forgo the acquisition. The Company continues to own a 16% interest in the project through Agua Caliente Borrower 2 LLC.

Carlsbad Equity Backstop

- On February 6, 2018, the Company entered into an agreement with NRG to purchase 100% of the membership interests in Carlsbad Energy Holdings LLC, which indirectly owns the Carlsbad project, a 527 MW natural gas fired project in Carlsbad, CA, pursuant to the NRG ROFO Agreement. Following the COD of the project in December 2018, the Company elected to utilize the Carlsbad backstop facility provided by GIP; as such, GIP purchased 100% of the membership interest in Carlsbad Energy Holdings LLC on February 27, 2019. The purchase price for the transaction was $387 million in cash consideration, exclusive of working capital and other adjustments, as well as the assumption of non-recourse debt of $601 million at completion. The Company maintains the option to purchase Carlsbad from GIP at any time within 18 months after February 27, 2019 at the same economic terms at which it originally agreed to purchase the asset from NRG. Should the Company not acquire Carlsbad during such 18 months, the project will become a CEG ROFO Asset.

Strategic Sponsorship with GIP

- On August 31, 2018, NRG transferred its full ownership interest in the Company to CEG, the holder of NRG's renewable energy development and operations platform, and subsequently sold 100% of its interest in CEG to an affiliate of GIP. As a result of the GIP Transaction, GIP indirectly acquired a 45.2% economic interest in Clearway Energy LLC and a 55% voting interest in the Company as of August 31, 2018.

Drop Down Asset Acquisitions

- On August 31, 2018, the Company entered into a binding agreement with CEG to acquire the effective equity interest in 80 MW of utility-scale solar projects located in Kawailoa and Oahu, Hawaii for approximately $28 million in cash consideration, subject to customary working capital and other adjustments, as well as the assumption of non-recourse debt of $169 million. The transaction is expected to close in summer of 2019.
- On March 30, 2018, the Company acquired 100% of NRG's interests in Buckthorn Renewables, LLC, or Buckthorn Solar, which owned a 154 MW utility-scale solar generation project for cash consideration of $42 million, plus assumed non-recourse debt of approximately $132 million as of September 30, 2018. The Buckthorn Solar project sells power under a 25-year power purchase agreement to the City of Georgetown, Texas. On July 1, 2018, the project achieved commercial operation.

Financing and Equity Activities

- On April 30, 2018, the Company closed on the refinancing of the revolving credit facility, which extended the maturity of the facility to April 28, 2023 and decreased the Company's overall cost of borrowing. The facility will continue to be used for general corporate purposes including financing of future acquisitions and posting letters of credit.
- On September 10, 2018, pursuant to the terms of the 2019 Convertible Notes and the 2020 Convertible Notes indentures, the Company delivered to the holders of the Convertible Notes a fundamental change notice and offer to repurchase any and all of the 2019 Convertible Notes and 2020 Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible Notes plus any accrued and unpaid interest. An aggregate principal amount of $109 million of the 2019 Convertible Notes and $243 million of the 2020 Convertible Notes were tendered on or prior to the expiration date of October 10, 2018 and accepted by the Company for purchase. After the expiration of the tender offer, $220 million aggregate principal amount of the 2019 Convertible Notes and $45 million aggregate principal amount of the 2020 Convertible Notes remained outstanding as of December 31, 2018.
- In August 2018 and January 2019, the Company completed a series of open market repurchases of 2019 Convertible Notes in aggregate principal amount of $66 million. The repurchases were funded through a partial repayment of the intercompany note between Clearway Energy Operating LLC and Clearway Energy, Inc. which was reduced by $66 million. During the first quarter of 2019, the Company paid off the remaining balance of aggregate principal amount of $220 million, which was funded through the payment of the remaining balance of the intercompany note due 2019 between Clearway Energy Operating LLC and Clearway Energy, Inc.
- On October 9, 2018, the Company received a notice of conversion with respect to $395,000 aggregate principal amount of the 2020 Convertible Notes. The Company elected, pursuant to the terms of the 2020 Convertible Notes indenture, to settle the conversion of such 2020 Convertible Notes in Class C common stock, par value $0.01 per share. The conversion of the 2020 Convertible Notes resulted in the issuance by the Company on October 12, 2018 of 14,363 shares of Class C common stock.
- On September 27, 2018, Clearway Energy, Inc. issued and sold an additional 3,916,449 shares of Class C common stock for net proceeds of $75 million. The Company utilized the proceeds of the offering to acquire additional 3,916,449 Class C units of Clearway Energy LLC.
- On October 1, 2018, Clearway Energy Operating LLC issued $600 million of senior unsecured notes, or the 2025 Senior Notes. The 2025 Senior Notes bear interest at 5.750% and mature on October 15, 2025. Interest on the notes is payable semi-annually on April 15 and October 15 of each year, and interest payments will commence on April 15, 2019. The 2025 Senior Notes are unsecured obligations of Clearway Energy Operating LLC and are guaranteed by Clearway Energy LLC and by certain of Clearway Energy Operating LLC's wholly owned current and future subsidiaries.
- During the year ended December 31, 2018, Clearway Energy, Inc. issued 4,492,473 shares of Class C common stock under the ATM Program for gross proceeds of $79 million and incurred commission fees of $790 thousand, as described in *Sources of Liquidity* in this Item 7.

Repowering Partnership

- On August 30, 2018, Wind TE Holdco entered into a partnership with CEG in order to facilitate the repowering of the Elbow Creek and Wildorado facilities. As part of the repowering partnership, the Company bought out an existing tax equity partner of Wind TE Holdco for $19 million on January 2, 2019.

Thermal Activities

- On June 19, 2018, upon reaching substantial completion, the Company acquired from NRG the UPMC Thermal Project for cash consideration of $84 million, subject to working capital adjustments. The Company had a payable of $4 million to NRG as of December 31,2018, $3 million of which was paid in January 2019 upon final completion of the project pursuant to the EPC agreement. The project adds 73 MWt of thermal equivalent capacity and 7.5 MW of emergency backup electrical capacity to the Company's portfolio. The transaction was accounted for as an asset acquisition and is reflected in the Company's Thermal segment.
- As further described in Note 10, *Long-term Debt,* on June 19, 2018, Energy Center Minneapolis LLC, a subsidiary of the Company, entered into an amended and restated Thermal note purchase and private shelf agreement under which it authorized the issuance of the Series E Notes, Series F Notes, Series G Notes, and Series H Notes and established a private shelf facility for the further issuance of $40 million in notes.
- On November 1, 2018, the Company entered into an Energy Services Agreement with Mylan LLC to supply chilled water, hot water and electricity through a dedicated combined heat and power facility to be constructed at Mylan's Caguas, Puerto Rico facility. The Company anticipates the project to total $11 million in capital expenditures and is expected to commence commercial operations in the second quarter of 2019.

Environmental Matters and Regulatory Matters

Details of environmental matters and regulatory matters are presented in Item 1 — *Business, Regulatory Matters* and Item 1A— *Risk Factors*. Details of some of this information relate to costs that may impact the Company's financial results.

Trends or Matters Affecting Results of Operations and Future Business Performance

PG&E Bankruptcy

As discussed above, the Company continues to assess the potential future impacts of the PG&E bankruptcy filing as events occur. However, no impact to the Company’s immediate operating activities has occurred as of December 31, 2018.

Wind and Solar Resource Availability

The availability of the wind and solar resources affects the financial performance of the wind and solar facilities, which may impact the Company’s overall financial performance. Due to the variable nature of the wind and solar resources, the Company cannot predict the availability of the wind and solar resources and the potential variances from expected performance levels from quarter to quarter. To the extent the wind and solar resources are not available at expected levels, it could have a negative impact on the Company’s financial performance for such periods.

Consolidated Results of Operations

2018 compared to 2017

The following table provides selected financial information:

(In millions)	Year ended December 31, 2018	2017	Change
Operating Revenues			
Energy and capacity revenues	$ 1,084	$ 1,038	$ 46
Other revenues	39	40	(1)
Contract amortization	(70)	(69)	(1)
Total operating revenues	1,053	1,009	44
Operating Costs and Expenses			
Cost of fuels	74	63	11
Operations and maintenance	189	197	(8)
Other costs of operations	69	66	3
Depreciation and amortization	331	334	(3)
Impairment losses	—	44	(44)
General and administrative	20	19	1
Acquisition-related transaction and integration costs	20	3	17
Development costs	3	—	3
Total operating costs and expenses	706	726	(20)
Operating Income	347	283	64
Other Income (Expense)			
Equity in earnings of unconsolidated affiliates	74	71	3
Other income, net	8	4	4
Loss on debt extinguishment	—	(3)	3
Interest expense	(294)	(294)	—
Total other expense, net	(212)	(222)	10
Net Income	135	61	74
Less: Net loss attributable to noncontrolling interests	(105)	(75)	(30)
Net Income Attributable to Clearway Energy LLC	$ 240	$ 136	$ 104

Business metrics:	Year ended December 31, 2018	2017
Renewables MWh generated/sold (in thousands) [(a)]	7,197	6,844
Thermal MWt sold (in thousands)	2,042	1,926
Thermal MWh sold (in thousands) [(c)]	48	35
Conventional MWh generated (in thousands) [(a)(b)]	1,656	1,809
Conventional equivalent availability factor	94.3%	93.9%

(a) Volumes do not include the MWh generated/sold by the Company's equity method investments.
(b) Volumes generated are not sold as the Conventional facilities sell capacity rather than energy.
(c) MWh sold do not include 108 and 72 MWh generated by NRG Dover, a subsidiary of the Company, under the PPA with NRG Power Marketing during the years ended December 31, 2018 and December 31, 2017, respectively, as further described in Item 15 — Note 13, *Related Party Transactions*, to the Consolidated Financial Statements.

Management's discussion of the results of operations for the years ended December 31, 2018 and 2017

Gross Margin

The Company calculates gross margin in order to evaluate operating performance as operating revenues less cost of sales, which includes cost of fuel, contract and emission credit amortization and mark-to-market for economic hedging activities.

Economic Gross Margin

In addition to gross margin, the Company evaluates its operating performance using the measure of economic gross margin, which is not a GAAP measure and may not be comparable to other companies' presentations or deemed more useful than the GAAP information provided elsewhere in this report. Economic gross margin should be viewed as a supplement to and not a substitute for the Company' presentation of gross margin, which is the most directly comparable GAAP measure. Economic gross margin is not intended to represent gross margin. The Company believes that economic gross margin is useful to investors as it is a key operational measure reviewed by the Company's chief operating decision maker. Economic gross margin is defined as energy and capacity revenue, plus other revenues, less cost of fuels. Economic gross margin excludes the following components from GAAP gross margin: contract amortization, mark-to-market results, emissions credit amortization and (losses) gains on economic hedging activities. Mark-to-market results consist of unrealized gains and losses on contracts that are not yet settled.

The below tables present the composition of gross margin, as well as the reconciliation to economic gross margin for the years ended December 31, 2018 and 2017:

(In millions)	Conventional	Renewables	Thermal	Eliminations	Total
Year ended December 31, 2018					
Energy and capacity revenues	$ 342	$ 572	$ 170	$ —	$ 1,084
Other revenues	—	16	26	(3)	39
Cost of fuels	(3)	—	(71)	—	(74)
Contract amortization	(5)	(62)	(3)	—	(70)
Gross margin	334	526	122	(3)	979
Contract amortization	5	62	3	—	70
Economic gross margin	$ 339	$ 588	$ 125	$ (3)	$ 1,049
Year ended December 31, 2017					
Energy and capacity revenues	$ 341	$ 547	$ 150	$ —	$ 1,038
Other revenues	—	16	24	—	40
Cost of fuels	(1)	—	(62)	—	(63)
Contract amortization	(5)	(62)	(2)	—	(69)
Gross margin	335	501	110	—	946
Contract amortization	5	62	2	—	69
Economic gross margin	$ 340	$ 563	$ 112	$ —	$ 1,015

Gross margin increased by $33 million during the year ended December 31, 2018, compared to the same period in 2017, primarily due to:

Segment	Increase (Decrease)	Reason for Increase
(In millions)		
Renewables:	$ 22	An increase of $15 million related to higher wind generation, primarily at the Alta Wind projects, and higher insolation, and a $7 million increase due to the Buckthorn Solar project reaching COD in July 2018
Thermal:	12	$7 million increase due to the acquisition of the UPMC Thermal Project, which was completed in 2018, as well as an increase of $5 million due to higher steam and chilled water usage across the portfolio in 2018
Conventional:	(1)	Decrease due to an emission credit reimbursement in 2017
	$ 33	

Operations and Maintenance Expense

Operations and maintenance expense decreased by $8 million during the year ended December 31, 2018, compared to the same period in 2017, primarily due to:

Segment	Increase (Decrease)		Reason for Increase (Decrease)
(In millions)			
Renewables	$	6	Increase primarily driven by the Buckthorn Solar project being placed in service in July 2018
Conventional		(14)	Lower outages in 2018 compared to 2017
	$	(8)	

Impairment Losses

The Company recorded impairment losses of $44 million for the years ended December 31, 2017.

During the fourth quarter of 2017, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, it was determined that both Elbow Creek and Forward projects were impaired due to the continued declining merchant power prices in the post contract periods. As a result, the Company recorded impairment losses of $26 million and $5 million for the Elbow Creek and Forward projects, respectively.

In addition, in connection with the sale of the November 2017 Drop Down Assets, it was identified that undiscounted cash flows were lower than the book value of certain SPP funds and NRG recorded an impairment expense of $13 million. In accordance with the guidance for transfer of assets under common control, the impairment is reflected in the Company's consolidated statements of operations for the period ended December 31, 2017.

For further discussion see Item 15 — Note 9, *Asset Impairments*, to the Consolidated Financial Statements, as well as in Critical Accounting Policies and Estimates in this Item 7.

Acquisition-Related Transaction and Integration Costs

Acquisition-related transaction and integration costs of $20 million during the year ended December 31, 2018, reflect fees paid to advisors and other costs associated with the GIP Transaction, as well as fees paid in connection with the acquisitions that took place in 2018, as further described in Note 3, *Business Acquisitions*.

Development Costs

The Company incurred $3 million of development cost expense during the year ended December 31, 2018. A total of $2 million of it was for the business development, personnel and benefits costs related to development projects within the Company's Thermal segment.

Equity in Earnings of Unconsolidated Affiliates

Equity in earnings of unconsolidated affiliates increased by $3 million during the year ended December 31, 2018, compared to the same period in 2017, primarily due to income allocated to the Company in DGPV Holdco 3, which was formed in September 2017, partially offset by losses allocated to the company in RPV Holdco and the Utah Solar Portfolio. The HLBV method of accounting generally allocates more losses to the tax equity investors in the first several years after fund formation, and conversely, more income to the Company

Interest Expense

Interest expense remained flat during the year ended December 31, 2018, compared to the same period in 2017 due to:

(In millions)	**Increase (Decrease)**
Normal amortization of project-level debt	$ (10)
Issuance of 2025 Senior Notes, partially offset by lower interest expense for the intercompany notes between Clearway Operating LLC and Clearway Energy, Inc., which were partially repaid in connection with the tender offer in October 2018	6
Change in mark-market of interest rate swaps	(3)
Issuance of Energy Center Minneapolis Series E, F, G, H Notes in June 2018 and additional interest expense for the Buckthorn Solar project-level debt	7
	$ —

Net Loss Attributable to Noncontrolling Interests

For the year ended December 31, 2018, the Company had a loss of $1 million attributable to CEG's economic interest in Repowering LLC and a loss of $104 million attributable to noncontrolling interests with respect to its tax equity financing arrangements and the application of the HLBV method.

For the year ended December 31, 2017, the Company had a loss of $75 million attributable to noncontrolling interests with respect to its tax equity financing arrangements and the application of the HLBV method, which was primarily related to the impairment losses described above.

Consolidated Results of Operations

2017 compared to 2016

The following table provides selected financial information:

(In millions)	Year ended December 31, 2017	2016	Change
Operating Revenues			
Energy and capacity revenues	$ 1,038	$ 1,065	$ (27)
Other revenues	40	39	1
Contract amortization	(69)	(69)	—
Total operating revenues	1,009	1,035	(26)
Operating Costs and Expenses			
Cost of fuels	63	61	2
Emissions credit amortization	—	6	(6)
Operations and maintenance	197	176	21
Other costs of operations	66	65	1
Depreciation and amortization	334	303	31
Impairment losses	44	185	(141)
General and administrative	19	14	5
Acquisition-related transaction and integration costs	3	1	2
Total operating costs and expenses	726	811	(85)
Operating Income	283	224	59
Other Income (Expense)			
Equity in earnings of unconsolidated affiliates	71	60	11
Other income, net	4	3	1
Loss on debt extinguishment	(3)	—	(3)
Interest expense	(294)	(272)	(22)
Total other expense, net	(222)	(209)	(13)
Net Income	61	15	46
Less: Net loss attributable to noncontrolling interests	(75)	(111)	36
Net Income Attributable to Clearway Energy LLC	$ 136	$ 126	$ 10

Business metrics:	Year ended December 31, 2017	2016
Renewables MWh generated/sold (in thousands) [(a)]	6,844	7,291
Thermal MWt sold (in thousands)	1,926	1,966
Thermal MWh sold (in thousands) [(c)]	35	71
Conventional MWh generated (in thousands) [(a)(b)]	1,809	1,697
Conventional equivalent availability factor	93.9%	95.3%

(a) Volumes do not include the MWh generated/sold by the Company's equity method investments.
(b) Volumes generated are not sold as the Conventional facilities sell capacity rather than energy.
(c) MWh sold do not include 72 and 204 MWh generated by NRG Dover, a subsidiary of the Company, under the PPA with NRG Power Marketing during the years ended December 31, 2017 and 2016,, respectively, as further described in Item 15 — Note 13, *Related Party Transactions,* to the Consolidated Financial Statements.

Management's discussion of the results of operations for the years ended December 31, 2017 and 2016

Gross Margin

The Company calculates gross margin in order to evaluate operating performance as operating revenues less cost of sales, which includes cost of fuel, contract and emission credit amortization and mark-to-market for economic hedging activities.

Economic Gross Margin

In addition to gross margin, the Company evaluates its operating performance using the measure of economic gross margin, which is not a GAAP measure and may not be comparable to other companies' presentations or deemed more useful than the GAAP information provided elsewhere in this report. Economic gross margin should be viewed as a supplement to and not a substitute for the Company' presentation of gross margin, which is the most directly comparable GAAP measure. Economic gross margin is not intended to represent gross margin. The Company believes that economic gross margin is useful to investors as it is a key operational measure reviewed by the Company's chief operating decision maker. Economic gross margin is defined as energy and capacity revenue, plus other revenues, less cost of fuels. Economic gross margin excludes the following components from GAAP gross margin: contract amortization, mark-to-market results, emissions credit amortization and (losses) gains on economic hedging activities. Mark-to-market results consist of unrealized gains and losses on contracts that are not yet settled.

The following tables present the composition of gross margin, as well as the reconciliation to economic gross margin for the years ended December 31, 2017 and 2016:

(In millions)	Conventional	Renewables	Thermal	Total
Year ended December 31, 2017				
Energy and capacity revenues	$ 341	$ 547	$ 150	$ 1,038
Other revenues	—	16	24	40
Cost of fuels	(1)	—	(62)	(63)
Contract amortization	(5)	(62)	(2)	(69)
Gross margin	$ 335	$ 501	$ 110	$ 946
Contract amortization	5	62	2	69
Economic gross margin	$ 340	$ 563	$ 112	$ 1,015
Year ended December 31, 2016				
Energy and capacity revenues	$ 338	$ 577	$ 150	$ 1,065
Other revenues	—	17	22	39
Cost of fuels	(1)	—	(60)	(61)
Contract amortization	(5)	(62)	(2)	(69)
Emissions credit amortization	(6)	—	—	(6)
Gross margin	$ 326	$ 532	$ 110	$ 968
Contract amortization	5	62	2	69
Emissions credit amortization	6	—	—	6
Economic gross margin	$ 337	$ 594	$ 112	$ 1,043

Gross margin decreased by $22 million and economic gross margin decreased by $28 million during the year ended December 31, 2017, compared to the same period in 2016, primarily due to:

Segment		(Decrease)Increase	Reason for Increase (Decrease)
(In millions)			
Renewables:		(31)	A 7% decrease in volume generated by wind projects, due to lower wind resources at the Alta Wind and Wind TE Holdco projects
Conventional:		3	Higher revenues due to 2016 higher peak season forced outages, as well as additional start-up revenue from Marsh Landing in 2017
Economic gross margin	$	(28)	
		6	Emissions credit amortization of NOx allowances at Walnut Creek and El Segundo in compliance with amendments to the Regional Clean Air Incentives Market program in 2016
Gross margin	$	(22)	

Operations and Maintenance Expense

Operations and maintenance expense increased by $21 million during the year ended December 31, 2017, compared to the same period in 2016, due to the forced outages in the Conventional segment. The Company recorded higher operations and maintenance costs in Walnut Creek in connection with the Unit 1 forced outages that took place in April of 2017, including an increase of loss on disposal of assets of $12 million, as well as higher operations and maintenance costs in El Segundo due to the forced outages in Units 5 and Unit 6 that took place in January 2017.

Impairment Losses

The Company recorded impairment losses of $44 million and $185 million for the years ended December 31, 2017 and 2016, respectively.

During the fourth quarter of 2017, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, it was determined that both Elbow Creek and Forward projects were impaired due to the continued declining merchant power prices in the post contract periods. As a result, the Company recorded impairment losses of $26 million and $5 million for the Elbow Creek and Forward projects, respectively.

In addition, in connection with the sale of the November 2017 Drop Down Assets, it was identified that undiscounted cash flows were lower than the book value of certain SPP funds and NRG recorded an impairment expense of $13 million. In accordance with the guidance for transfer of assets under common control, the impairment is reflected in the Company's consolidated statements of operations for the period ended December 31, 2017.

During the fourth quarter of 2016, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, it was determined that the cash flows for the Elbow Creek and Goat Wind projects and the Forward project were below the carrying value of the related assets, primarily driven by declining merchant power prices in post-contract periods, and that the assets were considered impaired. The Company recorded impairment losses of $117 million, $60 million and $6 million for Elbow Creek, Goat Wind, and Forward, respectively. The other impairments of $2 million related to the projects that were part of the November 2017 Drop Down Assets. Since the acquisition by the Company of the November 2017 Drop Down Assets related to transfer of assets under common control, these impairments were reflected in the Company's consolidated statements of operations for the period ending December 31, 2016. For further discussion see Item 15 — Note 9, *Asset Impairments*, to the Consolidated Financial Statements, as well as in *Critical Accounting Policies and Estimates* in this Item 7.

Equity in Earnings of Unconsolidated Affiliates

Equity in earnings of unconsolidated affiliates increased by $11 million during the year ended December 31, 2017, compared to the same period in 2016, primarily due to higher earnings from the solar partnerships with NRG, as well as the acquisition of the Utah Solar Portfolio in November 2016, partially offset by lower earnings from the San Juan Mesa investment.

Interest Expense

Interest expense increased by $22 million during the year ended December 31, 2017, compared to the same period in 2016, due to:

	(in millions)
Assumption of the Utah Solar Portfolio debt in connection with the March 2017 Drop Down Assets, as well as debt assumed in connection with the Buckthorn Solar Drop Down Asset on March 30, 2018	$ 15
Issuance of 2026 Senior Notes in the third quarter of 2016	11
Issuance of new project level debt in the second half of 2016 and 2017 partially offset by the lower principal balances on project level debt in 2017	1
Higher borrowings in 2016 on the revolving credit facility	(5)
	$ 22

Net Loss Attributable to Noncontrolling Interests

For the year ended December 31, 2017, the Company had a loss of $75 million attributable to noncontrolling interests with respect to its tax equity financing arrangements and the application of the HLBV method. For the year ended December 31, 2016, the Company had a loss of $111 million attributable to noncontrolling interests with respect to its tax equity financing arrangements and the application of the HLBV method, which was primarily related to the impairment losses described above.

Liquidity and Capital Resources

The Company's principal liquidity requirements are to meet its financial commitments, finance current operations, fund capital expenditures, including acquisitions from time to time, service debt and pay distributions. As a normal part of the Company's business, depending on market conditions, the Company will from time to time consider opportunities to repay, redeem, repurchase or refinance its indebtedness. Changes in the Company's operating plans, lower than anticipated sales, increased expenses, acquisitions or other events may cause the Company to seek additional debt or equity financing in future periods. There can be no guarantee that financing will be available on acceptable terms or at all. Debt financing, if available, could impose additional cash payment obligations and additional covenants and operating restrictions.

Current Liquidity Position

As of December 31, 2018 and 2017, the Company's liquidity was approximately $1,037 million and $680 million, respectively, comprised of cash, restricted cash, and availability under the Company's revolving credit facility.

	As of December 31,	
	2018	2017
	(In millions)	
Cash and cash equivalents:		
Clearway Energy LLC, excluding subsidiaries	$ 298	$ 22
Subsidiaries	109	124
Restricted cash:		
Operating accounts	84	25
Reserves, including debt service, distributions, performance obligations and other reserves	92	143
Total cash, cash equivalents and restricted cash	$ 583	$ 314
Revolving credit facility availability	$ 454	$ 366
Total liquidity	$ 1,037	$ 680

The Company's liquidity includes $176 million and $168 million of restricted cash balances as of December 31, 2018 and 2017, respectively. Restricted cash consists primarily of funds to satisfy the requirements of certain debt arrangements and funds held within the Company's projects that are restricted in their use. As of December 31, 2018, these restricted funds comprised of $84 million designated to fund operating expenses, approximately $26 million designated for current debt service payments, and $32 million restricted for reserves including debt service, performance obligations and other reserves, as well as capital expenditures. The remaining $34 million is held in distribution reserve accounts, of which $31 million related to subsidiaries affected by the PG&E bankruptcy as discussed further below and may not be distributed during the pendency of the bankruptcy.

As of December 31, 2018, the Company had no borrowings under the revolving credit facility and $41 million of letters of credit were outstanding under the revolving credit facility.

Subsequent to December 31, 2018, the Clearway Energy, Inc. repaid the remaining $220 million balance of the 2019 Convertible Notes. which was funded through the payment of the remaining balance of the intercompany note due 2019 between Clearway Energy Operating LLC and Clearway Energy, Inc., and acquired the Class A interest in Wind TE Holdco for $19 million, as further described below in Uses of Liquidity.

In August 2018 and January 2019, the Company completed a series of open market repurchases of 2019 Convertible Notes in aggregate principal amount of $66 million. The 2019 Convertible Notes matured on February 1, 2019 and the Company paid off the remaining balance of an aggregate principal amount of $170 million as further described in Item 15 — Note 10, *Long-term Debt*, to the Consolidated Financial Statements.

On January 29, 2019, PG&E filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. The PG&E bankruptcy had no effect on availability under the Company’s revolving credit facility. However, the Company has non-recourse project-level debt related to each of its subsidiaries that sell their output to PG&E under long-term PPAs. The PG&E bankruptcy filing is an event of default under the related financing agreements which caused uncertainty around the timing of when certain project-level cash distributions will be available to the Company. As of December 31, 2018, all project level cash balances for these subsidiaries were classified as restricted cash.

Management believes that the Company's liquidity position, cash flows from operations and availability under its revolving credit facility will be adequate to meet the Company's financial commitments; debt service obligations; growth, operating and maintenance capital expenditures; and to fund distributions to Clearway Energy, Inc. and Clearway Energy Group, LLC. Management continues to regularly monitor the Company's ability to finance the needs of its operating, financing and investing activity within the dictates of prudent balance sheet management.

Credit Ratings

Credit rating agencies rate a firm's public debt securities. These ratings are utilized by the debt markets in evaluating a firm's credit risk. Ratings influence the price paid to issue new debt securities by indicating to the market the Company's ability to pay principal, interest and preferred dividends. Rating agencies evaluate a firm's industry, cash flow, leverage, liquidity, and hedge profile, among other factors, in their credit analysis of a firm's credit risk. As of December 31, 2018, the Company's 2024 Senior Notes, 2025 Senior Notes and 2026 Senior Notes are rated BB by S&P and Ba2 by Moody's.

S&P and Moody's reaffirmed the ratings outlook as stable on February 25, 2019 and on February 15, 2019, respectively.

Sources of Liquidity

The Company's principal sources of liquidity include cash on hand, cash generated from operations, borrowings under new and existing financing arrangements and the issuance of additional equity and debt securities by Clearway Energy, Inc. or the Company as appropriate given market conditions. As described in Item 15— Note 10, *Long-term Debt*, to the Consolidated Financial Statements, and above in *Significant Events During the Year Ended December 31, 2018,* the Company's financing arrangements consist of Clearway Energy, Inc.'s equity offering of Class C common stock on September 27, 2018, corporate level debt, which includes Senior Notes, intercompany borrowings with Clearway Energy, Inc., and the revolving credit facility; the ATM Program; and project-level financings for its various assets.

2025 Senior Notes — On October 1, 2018, Clearway Energy Operating LLC issued $600 million of senior unsecured notes, or the 2025 Senior Notes. The 2025 Senior Notes bear interest at 5.750% and mature on October 15, 2025. Interest on the notes is payable semi-annually on April 15 and October 15 of each year, and interest payments will commence on April 15, 2019. The 2025 Senior Notes are unsecured obligations of Clearway Energy Operating LLC and are guaranteed by Clearway Energy LLC and by certain of Clearway Energy Operating LLC's wholly owned current and future subsidiaries.

2018 Equity Offering — On September 27, 2018, Clearway Energy, Inc. issued and sold an additional 3,916,449 shares of Class C common stock for net proceeds of $75 million. The Company utilized the proceeds of the offering to acquire 3,916,449 Class C units of Clearway Energy LLC.

Revolving Credit Facility — On April 30, 2018, the Company closed on the refinancing of the revolving credit facility, which extended the maturity of the facility to April 28, 2023 and decreased the Company's overall cost of borrowing. The facility will continue to be used for general corporate purposes including financing of future acquisitions and posting letters of credit.

ATM Sales — Clearway Energy, Inc. sold a total of 4,492,473 of Class C common stock under the ATM program for gross proceeds of $79 million during the year ended December 31, 2018. Clearway Energy, Inc. incurred commission fees of $790 thousand during the period ended December 31, 2018. Clearway Energy, Inc. used the net proceeds to acquire 4,492,473 Class C units from Clearway Energy LLC.

As of February 28, 2019, approximately $36 million of Class C common stock remains available for issuance under the ATM Program.

Thermal Notes — On June 19, 2018, Energy Center Minneapolis LLC, a subsidiary of the Company, completed the issuances of 4.80% Series E notes due June 15, 2033, or the Series E Notes, and 4.60% Series F notes due March 15, 2033, or the Series F Notes, for gross proceeds of $80 million. The proceeds of the Series E Notes and Series F Notes were utilized to finance the acquisition of the UPMC Thermal Project. Also, on June 19, 2018, Energy Center Minneapolis LLC issued $83 million of 5.90% Series G notes due June 15, 2035, or the Series G Notes, which were utilized to refinance its $83 million of outstanding Series C notes. Energy Center Minneapolis LLC also issued 4.83% Series H notes due June 15, 2037, or the Series H Notes for proceeds of $40 million and established a private shelf facility for the future issuance of $40 million in additional notes.

Uses of Liquidity

The Company's requirements for liquidity and capital resources, other than for operating its facilities, are categorized as: (i) debt service obligations, as described more fully in Item 15 — Note 10, *Long-term Debt* to the Consolidated Financial Statements; (ii) capital expenditures; (iii) acquisitions and investments; and (iv) distributions.

Debt Service Obligations

Principal payments on debt as of December 31, 2018, are due in the following periods:

Description	2019	2020	2021	2022	2023	There-after	Total
				(In millions)			
Long-term debt - affiliate, due 2019	$ 215	$ —	$ —	$ —	$ —	$ —	$ 215
Long-term debt - affiliate, due 2020	—	44	—	—	—	—	44
Clearway Energy Operating LLC Senior Notes, due 2024	—	—	—	—	—	500	500
Clearway Energy Operating LLC Senior Notes, due 2025						600	600
Clearway Energy Operating LLC Senior Notes, due 2026	—	—	—	—	—	350	350
Total Corporate-level debt	215	44	—	—	—	1,450	1,709
Project-level debt:							
Agua Caliente Borrower 2, due 2038	1	1	1	1	1	34	39
Alpine, due 2022	8	8	8	103	—	—	127
Alta Wind I - V lease financing arrangements, due 2034 and 2035	41	45	45	47	49	659	886
Buckthorn Solar, due 2025	3	3	3	3	3	117	132
CVSR, due 2037	24	21	23	25	26	601	720
CVSR Holdco Notes, due 2037	6	6	7	9	9	151	188
El Segundo Energy Center, due 2023	49	53	57	63	130	—	352
Energy Center Minneapolis Series C, D, E, F, G, H Notes, due 2025-2037	—	—	—	—	—	328	328
Kansas South, due 2030	2	2	2	2	2	16	26
Laredo Ridge, due 2028	5	6	6	7	7	58	89
Marsh Landing, due 2023	57	60	62	65	19	—	263
South Trent Wind, due 2020	5	45	—	—	—	—	50
Tapestry, due 2021	11	11	129	—	—	—	151
Utah Solar Portfolio, due 2022	14	13	13	227	—	—	267
Viento, due 2023	18	16	16	17	79	—	146
Walnut Creek, due 2023	47	49	52	55	19	—	222
Other	23	22	23	22	45	208	343
Total project-level debt	314	361	447	646	389	2,172	4,329
Total debt	$ 529	$ 405	$ 447	$ 646	$ 389	$ 3,622	$ 6,038

Capital Expenditures

The Company's capital spending program is mainly focused on maintenance capital expenditures, consisting of costs to maintain the assets currently operating, such as costs to replace or refurbish assets during routine maintenance, and growth capital expenditures, consisting of costs to construct new assets, costs to complete the construction of assets where construction is in process, and capital expenditures related to acquiring additional thermal customers. For the years ended December 31, 2018, 2017, and 2016, the Company used approximately $83 million, $190 million, and $20 million, respectively, to fund capital expenditures, including maintenance capital expenditures of $36 million, $27 million and $16 million, respectively. Growth capital expenditures in 2018 include $33 million in the Renewables segment in connection with the construction of Buckthorn Solar Drop Down Asset, of which $10 million was incurred by NRG during the construction of Buckthorn Solar prior to its acquisition by the Company on March 30, 2018, as described below. Growth capital expenditures in 2017 primarily relate to $159 million incurred by NRG during the construction of Buckthorn Solar prior to its acquisition by the Company. Growth capital expenditures in 2016 primarily related to the servicing new customers in district energy centers within the Thermal segment. The Company develops annual capital spending plans based on projected requirements for maintenance and growth capital. The Company estimates $30 million of maintenance expenditures for 2019. These estimates are subject to continuing review and adjustment and actual capital expenditures may vary from these estimates.

Acquisitions and Investments

The Company intends to acquire generation assets developed and constructed by CEG, as well as generation and thermal infrastructure assets from third parties where the Company believes its knowledge of the market and operating expertise provides a competitive advantage, and to utilize such acquisitions as a means to grow its CAFD.

Wind TE Holdco Buyout — On January 2, 2019, the Company bought out 100% of Class A membership interest from the TE Investor, for cash consideration of $19 million, as further described in Item 15 — Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities*.

UPMC Thermal Project — On June 19, 2018, upon reaching substantial completion, the Company acquired from NRG the UPMC Thermal Project for cash consideration of $84 million, subject to working capital adjustments. The Company had a payable of $4 million to NRG as of December 31,2018, $3 million of which was paid in January 2019 upon final completion of the project pursuant to the EPC agreement. The project adds 73 MWt of thermal equivalent capacity and 7.5 MW of emergency backup electrical capacity to the Company's portfolio. The transaction was accounted for as an asset acquisition and is reflected in the Company's Thermal segment.

Central CA Fuel Cell 1, LLC — On April 18, 2018, the Company acquired the Central CA Fuel Cell 1, LLC project in Tulare, California from FuelCell Energy Finance, Inc., for cash consideration of $11 million, subject to working capital adjustments. The project adds 2.8 MW of thermal capacity to the Company's portfolio, with a 20-year PPA contract with the City of Tulare. The transaction is reflected in the Company's Thermal segment.

Buckthorn Solar Drop Down Asset — On March 30, 2018, the Company acquired 100% of NRG's interests in Buckthorn Renewables, LLC, which owns a 154 MW construction-stage utility-scale solar generation project, located in Texas, or the Buckthorn Solar Drop Down Asset, for cash consideration of approximately $42 million, subject to working capital adjustments. The project sells power under a 25-year PPA to the City of Georgetown, Texas which commenced in July 2018.

Carlsbad Project — On February 6, 2018, the Company entered into an agreement with NRG to purchase 100% of the membership interests in Carlsbad Energy Holdings LLC, which indirectly owns the Carlsbad project, a 527 MW natural gas fired project in Carlsbad, CA, pursuant to the NRG ROFO Agreement. Following the COD of the project in December 2018, the Company elected to utilize the Carlsbad backstop facility provided by GIP; as such, GIP purchased 100% of the membership interest in Carlsbad Energy Holdings LLC on February 27, 2019. The purchase price for the transaction was $387 million in cash consideration, exclusive of working capital and other adjustments, as well as the assumption of non-recourse debt of $601 million at completion. The Company maintains the option to purchase Carlsbad from GIP at any time within 18 months after February 27, 2019 at the same economic terms at which it originally agreed to purchase the asset from NRG. Should the Company not acquire Carlsbad during such 18 months, the project will become a CEG ROFO Asset.

Hawaii Solar Assets — On August 31, 2018, the Company entered into a binding agreement with CEG to acquire 80 MW of utility-scale solar projects located in Kawailoa and Oahu, Hawaii for cash consideration of $28 million, subject to customary working capital and other adjustments, as well as the assumption of non-recourse debt of $169 million. The transaction is expected to close in summer of 2019.

Mylan Pharmaceuticals — On November 1, 2018, the Company entered into an Energy Services Agreement with Mylan LLC to supply chilled water, hot water and electricity through a dedicated combined heat and power facility to be constructed at Mylan's Caguas, Puerto Rico facility. The Company incurred approximately $7 million in construction work in progress costs and anticipates the project to total $11 million in capital expenditures. The project is expected to commence commercial operations in the second quarter of 2019.

Investment Partnership with CEG

During the period of January 1, 2018 to December 31, 2018, the Company invested $34 million in distributed generation partnerships with CEG.

Open Market Repurchases and Tender Offer

In August 2018, Clearway Energy, Inc. repurchased an aggregate principal amount of $16 million of the 2019 Convertible Notes in open market transactions. The repurchases were funded through a repayment of the intercompany note between Clearway Operating LLC and Clearway Energy, Inc. which was reduced by $16 million.

On September 10, 2018, pursuant to the 2019 Convertible Notes and the 2020 Convertible Notes indentures, Clearway Energy, Inc. delivered to the holders of the Convertible Notes a fundamental change notice and offer to repurchase any and all of the 2019 Convertible Notes and 2020 Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible

Notes plus any accrued and unpaid interest. The tender offer expired on October 9, 2018. An aggregate principal amount of $109 million of the 2019 Convertible Notes and $243 million of the 2020 Convertible Notes were tendered on or prior to the expiration date and accepted by Clearway Energy, Inc. for purchase. After the expiration of the tender offer, $220 million aggregate principal amount of the 2019 Convertible Notes and $45 million aggregate principal amount of the 2020 Convertible Notes remained outstanding as of December 31, 2018.

Subsequent to December 31, 2018, Clearway Energy, Inc. repaid the remaining balance of the 2019 Convertible Notes, which was funded through the payment of the remaining balance of the intercompany note due 2019 between Clearway Energy Operating LLC and Clearway Energy, Inc..

Cash Distributions to Clearway Energy, Inc. and CEG

The Company intends to distribute to its unit holders in the form of a quarterly distribution all of the CAFD that is generated each quarter less reserves for the prudent conduct of the business, including among others, maintenance capital expenditures to maintain the operating capacity of the assets. CAFD is defined as net income before interest expense, income taxes, depreciation and amortization, plus cash distributions from unconsolidated affiliates, cash receipts from notes receivable, less cash distributions to noncontrolling interests, maintenance capital expenditures, pro-rata EBITDA from unconsolidated affiliates, cash interest paid, income taxes paid, principal amortization of indebtedness and changes in prepaid and accrued capacity payments. Distributions on units are subject to available capital, market conditions, and compliance with associated laws, regulations and other contractual obligations. The Company expects that, based on current circumstances, comparable distributions will continue to be paid in the foreseeable future. The Company will continue to evaluate its capital allocation approach during the pendency of the PG&E Bankruptcy.

The following table lists the distributions paid on the Company's Class A, Class B, Class C and Class D units during the year ended December 31, 2018:

	Fourth Quarter 2018	Third Quarter 2018	Second Quarter 2018	First Quarter 2018
Distributions per Class A and Class B unit	$ 0.331	$ 0.320	$ 0.309	$ 0.298
Distributions per Class C and Class D unit	$ 0.331	$ 0.320	$ 0.309	$ 0.298

On February 12, 2019, the Company declared a quarterly distribution on its Class A, Class B, Class C and Class D units of $0.20 per unit payable on March 15, 2019.

Cash Flow Discussion

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

The following table reflects the changes in cash flows for the year ended December 31, 2018, compared to 2017:

Year ended December 31,	2018	2017	Change
(In millions)			
Net cash provided by operating activities	$ 492	$ 517	$ (25)
Net cash used in investing activities	(185)	(442)	257
Net cash used in financing activities	(38)	(258)	220

Net Cash Provided By Operating Activities

Changes to net cash provided by operating activities were driven by:	(In millions)
Increase in operating income adjusted for non-cash items driven in 2018 compared to 2017	$ 4
Decrease in working capital driven primarily by the timing of accounts receivable collections, paying down accounts payable - affiliate balances to NRG during 2018, as well payments made to reduce certain Alta Wind projects letters of credit	(27)
Lower distributions from unconsolidated affiliates	(2)
	$ (25)

Net Cash Used In Investing Activities

Changes to net cash used in investing activities were driven by:	(In millions)
Current year reflects the Buckthorn Solar Drop Down Asset and UPMC Thermal Project compared to the payment made for the March 2017, August 2017, and November 2017 Drop Down Assets in 2017	$ 124
Lower net investment in unconsolidated affiliates primarily in the DGPV partnerships with CEG during 2018	37
Payment to acquire Central CA Fuel Cell 1, LLC in 2018	(11)
Lower capital expenditures driven by prior year capital expenditures for the Buckthorn Solar project	107
	$ 257

Net Cash Used In Financing Activities

Changes in net cash used in financing activities were driven by:	(In millions)
Net proceeds from the refinancing of the Thermal note purchase and private shelf agreement	$ 120
Net proceeds from corporate-level debt driven by the issuance of the 2025 Senior Notes, partially offset by the repayments of the intercompany notes with Clearway Energy, Inc.	241
Proceeds from borrowings for the Buckthorn Solar project in 2017, as well as higher project level debt amortization in 2018 compared to 2017	(216)
Net payments of $55 million under the revolving credit facility in 2018 compared to proceeds of $55 million in 2017	(110)
Increase in net contributions from noncontrolling interests primarily for the tax equity arrangements for the Buckthorn Solar project which closed in 2018	93
Lower net payments of distributions to NRG for the Drop Down Assets relating to the pre-acquisition period in 2018 compared to 2017	23
Higher net proceeds from the Clearway Energy, Inc. common stock offering under the ATM Program in 2018 compared to 2017	45
Net proceeds from the Class C Common stock offering in September 2018	75
Increase in distributions paid to unit holders	(51)
	$ 220

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

The following table reflects the changes in cash flows for the year ended December 31, 2017, compared to 2016:

Year ended December 31,	2017	2016	Change
(In millions)			
Net cash provided by operating activities	$ 517	$ 577	$ (60)
Net cash used in investing activities	(442)	(131)	(311)
Net cash (used in) provided by financing activities	(258)	(202)	(56)

Net Cash Provided By Operating Activities

Changes to net cash provided by operating activities were driven by:	(In millions)
Decrease in operating income adjusted for non-cash items driven by primarily by lower revenues in the Renewables segment in 2017 compared to 2016	$ (63)
Decrease in working capital driven primarily by the timing of accounts receivable collections, and inventory build up in the Renewables segment in connection with the transition to self operations, as well as higher prepaid expenses in 2017 compared to 2016	(11)
Higher distributions from unconsolidated affiliates primarily due to the acquisition of the Utah Solar Portfolio, which was acquired by the Company in March 2017 and by NRG in November 2016	14
	$ (60)

Net Cash Used In Investing Activities

Changes to net cash used in investing activities were driven by:	(In millions)
Payments for the acquisition of the March 2017, August 2017, and November 2017 Drop Down Assets in 2017 compared to the CVSR Drop Down in 2016	$ (173)
Higher return of investment from unconsolidated affiliates combined with lower investments primarily in the DGPV Holdco entities in 2017	29
Higher capital expenditures primarily related to maintenance capital expenditures at Walnut Creek as a result of the forced outages in 2017	(11)
Capital expenditures incurred by NRG in connection with construction of the Buckthorn Solar Drop Down Asset in 2017, which was acquired by the Company on March 30, 2018	(159)
Higher proceeds in 2017 in the Conventional segment compared to the insurance proceeds received in 2016 in the Renewables segment	3
	$ (311)

Net Cash (Used In) Provided By Financing Activities

Changes in net cash provided by financing activities were driven by:	(In millions)
Lower net payments of distributions to NRG for the Drop Down Assets relating to the pre-acquisition period in 2017 compared to 2016	$ 161
Increase in net contributions from noncontrolling interests due to higher production-based payments in 2017 compared to 2016	8
Proceeds from the Clearway Energy, Inc. Class C common stock offerings under the ATM Program, net of underwriting discounts and commissions	33
Increase in distributions paid to unit holders	(29)
Net repayments of $306 million under the revolving credit facility in 2016 compared to proceeds of $66 million in 2017	361
Higher borrowing in 2016, primarily related to the 2026 Senior Notes and CVSR Holdco Notes due 2037, as well as higher repayments of long-term debt in 2017, partially offset by borrowings at Buckthorn Solar Drop Down Asset in 2017	(590)
	$ (56)

Off-Balance Sheet Arrangements

Obligations under Certain Guarantee Contracts

The Company may enter into guarantee arrangements in the normal course of business to facilitate commercial transactions with third parties.

Retained or Contingent Interests

The Company does not have any material retained or contingent interests in assets transferred to an unconsolidated entity.

Obligations Arising Out of a Variable Interest in an Unconsolidated Entity

Variable interest in equity investments — As of December 31, 2018, the Company has several investments with an ownership interest percentage of 50% or less in energy and energy-related entities that are accounted for under the equity method. DGPV Holdco 1 LLC, DGPV Holdco 2 LLC, DGPV Holdco 3 LLC, RPV Holdco 1 LLC and GenConn are variable interest entities for which the Company is not the primary beneficiary. The Company's pro-rata share of non-recourse debt held by unconsolidated affiliates was approximately $878 million as of December 31, 2018. This indebtedness may restrict the ability of these subsidiaries to issue dividends or distributions to the Company. See also Item 15 — Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities*, to the Consolidated Financial Statements.

Contractual Obligations and Commercial Commitments

The Company has a variety of contractual obligations and other commercial commitments that represent prospective cash requirements in addition to the Company's capital expenditure programs. The following table summarizes the Company's contractual obligations. See Item 15 — Note 10, *Long-term Debt* and Note 14, *Commitments and Contingencies*, to the Consolidated Financial Statements for additional discussion.

	By Remaining Maturity at December 31,					
	2018					2017
Contractual Cash Obligations	Under 1 Year	1-3 Years	3-5 Years	Over 5 Years	Total	Total
	(In millions)					
Long-term debt (including estimated interest)	$ 831	$ 1,388	$ 1,467	$ 4,441	$ 8,127	$ 8,026
Operating leases	13	26	25	207	271	196
Fuel purchase and transportation obligations	11	6	6	13	36	41
Other liabilities [(a)]	30	51	26	113	220	208
Total	$ 885	$ 1,471	$ 1,524	$ 4,774	$ 8,654	$ 8,471

(a) Includes water right agreements, service and maintenance agreements, and LTSA commitments.

Fair Value of Derivative Instruments

The Company may enter into fuel purchase contracts and other energy-related financial instruments to mitigate variability in earnings due to fluctuations in spot market prices and to hedge fuel requirements at certain generation facilities. In addition, in order to mitigate interest rate risk associated with the issuance of variable rate debt, the Company enters into interest rate swap agreements.

The tables below disclose the activities of non-exchange traded contracts accounted for at fair value in accordance with ASC 820. Specifically, these tables disaggregate realized and unrealized changes in fair value; disaggregate estimated fair values at December 31, 2018, based on their level within the fair value hierarchy defined in ASC 820; and indicate the maturities of contracts at December 31, 2018. For a full discussion of the Company's valuation methodology of its contracts, see *Derivative Fair Value Measurements* in Item 15 — Note 6, *Fair Value of Financial Instruments*, to the Consolidated Financial Statements.

Derivative Activity (Losses)/Gains	(In millions)
Fair value of contracts as of December 31, 2017	$ (47)
Contracts realized or otherwise settled during the period	18
Changes in fair value	19
Fair value of contracts as of December 31, 2018	$ (10)

Fair Value Hierarchy (Losses)/Gains	Fair value of contracts as of December 31, 2018				
	Maturity				
	1 Year or Less	Greater Than 1 Year to 3 Years	Greater Than 3 Years to 5 Years	Greater Than 5 Years	Total Fair Value
	(In millions)				
Level 2	(1)	(7)	(4)	2	(10)

The Company has elected to disclose derivative assets and liabilities on a trade-by-trade basis and does not offset amounts at the counterparty master agreement level. As discussed below in *Quantitative and Qualitative Disclosures about Market Risk -Commodity Price Risk,* NRG, on behalf of the Company, measures the sensitivity of the portfolio to potential changes in market prices using VaR, a statistical model which attempts to predict risk of loss based on market price and volatility. NRG's risk management policy places a limit on one-day holding period VaR, which limits the net open position.

Critical Accounting Policies and Estimates

The Company's discussion and analysis of the financial condition and results of operations are based upon the consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements and related disclosures in compliance with GAAP requires the application of appropriate technical accounting rules and guidance as well as the use of estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. The application of these policies necessarily involves judgments regarding future events, including the likelihood of success of particular projects, legal and regulatory challenges, and the fair value of certain assets and liabilities. These judgments, in and of themselves, could materially affect the financial statements and disclosures based on varying assumptions, which may be appropriate to use. In addition, the financial and operating environment may also have a significant effect, not only on the operation of the business, but on the results reported through the application of accounting measures used in preparing the financial statements and related disclosures, even if the nature of the accounting policies has not changed.

On an ongoing basis, the Company evaluates these estimates, utilizing historic experience, consultation with experts and other methods the Company considers reasonable. Actual results may differ substantially from the Company's estimates. Any effects on the Company's business, financial position or results of operations resulting from revisions to these estimates are recorded in the period in which the information that gives rise to the revision becomes known.

The Company's significant accounting policies are summarized in Item 15 — Note 2, *Summary of Significant Accounting Policies*, to the Consolidated Financial Statements. The Company identifies its most critical accounting policies as those that are the most pervasive and important to the portrayal of the Company's financial position and results of operations, and that require the most difficult, subjective and/or complex judgments by management regarding estimates about matters that are inherently uncertain. The Company's critical accounting policies include impairment of long lived assets and other intangible assets.

Accounting Policy	Judgments/Uncertainties Affecting Application
Impairment of Long Lived Assets	Recoverability of investments through future operations
	Regulatory and political environments and requirements
	Estimated useful lives of assets
	Operational limitations and environmental obligations
	Estimates of future cash flows
	Estimates of fair value
	Judgment about triggering events

Evaluation of Assets for Impairment and Other-Than-Temporary Decline in Value

In accordance with ASC 360, *Property, Plant, and Equipment*, or ASC 360, property, plant and equipment and certain intangible assets are evaluated for impairment whenever indicators of impairment exist. Examples of such indicators or events are:

- Significant decrease in the market price of a long-lived asset;
- Significant adverse change in the manner an asset is being used or its physical condition;
- Adverse business climate;

- Accumulation of costs significantly in excess of the amount originally expected for the construction or acquisition of an asset;
- Current-period loss combined with a history of losses or the projection of future losses; and
- Change in the Company's intent about an asset from an intent to hold to a greater than 50% likelihood that an asset will be sold or disposed of before the end of its previously estimated useful life.

Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to the future net cash flows expected to be generated by the asset, through considering project specific assumptions for long-term power pool prices, escalated future project operating costs and expected plant operations. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. The fair value may be determined by factoring in the probability weighting of different courses of action available to the Company as appropriate. Generally, fair value will be determined using valuation techniques such as the present value of expected future cash flows or comparable values determined by transactions in the market. The Company uses its best estimates in making these evaluations and considers various factors, including forward price curves for energy, fuel costs and operating costs. However, actual future market prices and project costs could vary from the assumptions used in the Company's estimates, and the impact of such variations could be material.

Annually, during the fourth quarter, the Company revises its views of power prices, including the Company's fundamental view for long-term power prices, forecasted generation and operating and capital expenditures, in connection with the preparation of its annual budget.

The Company recorded certain long-lived asset impairments in 2017 and 2016, as described in Item 15 — Note 9, *Asset Impairments*, to the Consolidated Financial Statements, with respect to several wind projects.

During the fourth quarter of 2017, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, the Company determined that the cash flows for the Elbow Creek and Forward facilities were below the carrying value of the related assets, primarily driven by continued declining merchant power prices in post-contract periods, and that the assets were considered impaired. The fair value of the facilities was determined using an income approach by applying a discounted cash flow methodology to the long-term budgets for each respective plant. The income approach utilizes estimates of discounted future cash flows, which include key inputs, such as forecasted power prices, operations and maintenance expense, and discount rates. The Company measured the impairment loss as the difference between the carrying amount and the fair value of the assets and recorded impairment losses of $26 million and $5 million for Elbow Creek and Forward, respectively.

The Company is also required to evaluate its equity method investments to determine whether or not they are impaired. ASC 323, *Investments - Equity Method and Joint Ventures*, or ASC 323, provides the accounting requirements for these investments. The standard for determining whether an impairment must be recorded under ASC 323 is whether the value is considered to be an other-than-temporary decline in value. The evaluation and measurement of impairments under ASC 323 involves the same uncertainties as described for long-lived assets that the Company owns directly and accounts for in accordance with ASC 360. Similarly, the estimates that the Company makes with respect to its equity method investments are subjective, and the impact of variations in these estimates could be material. Additionally, if the projects in which the Company holds these investments recognize an impairment under the provisions of ASC 360, the Company would record its proportionate share of that impairment loss and would evaluate its investment for an other-than-temporary decline in value under ASC 323.

Certain of the Company’s projects have useful lives that extend well beyond the contract period and therefore, management’s view of long-term power prices in the post-contract periods may have a significant impact on the expected future cash flows for these projects. Accordingly, if management’s view of long-term power prices in certain markets continues to decrease, it is possible that some of the Company’s other long-lived assets may be impaired.

As previously described, on January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code. Certain subsidiaries of the Company sell the output of their facilities to PG&E under long-term PPAs, including interests in 6 solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW. The Company consolidates three of the solar facilities and Marsh Landing and records its interest in the other solar facilities as equity method investments. The Company has determined that it has no impairment of the long-lived assets or equity method investments associated with these subsidiaries. Assumptions utilized to test these assets for impairment may change based on future events related to the PG&E bankruptcy, which could result in an impairment loss if the PPAs are rejected or amended, or if the Company is not able to collect its revenues from PG&E in a timely manner.

Recent Accounting Developments

See Item 15 — Note 2, *Summary of Significant Accounting Policies*, to the Consolidated Financial Statements for a discussion of recent accounting developments.

Item 7A — Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to several market risks in its normal business activities. Market risk is the potential loss that may result from market changes associated with the Company's power generation or with an existing or forecasted financial or commodity transaction. The types of market risks the Company is exposed to are commodity price risk, interest rate risk, liquidity risk, and credit risk.

Commodity Price Risk

Commodity price risks result from exposures to changes in spot prices, forward prices, volatilities, and correlations between various commodities, such as electricity, natural gas and emissions credits. The Company manages the commodity price risk of its merchant generation operations by entering into derivative or non-derivative instruments to hedge the variability in future cash flows from forecasted power sales or purchases of fuel. The portion of forecasted transactions hedged may vary based upon management's assessment of market, weather, operation and other factors. See Item 15 — Note 7, *Accounting for Derivative Instruments and Hedging Activities*, to the Consolidated Financial Statements for more information.

Based on a sensitivity analysis using simplified assumptions, the impact of a $0.50 per MMBtu increase or decrease in natural gas prices across the term of the derivative contracts would cause a change of approximately $1 million in the net value of derivatives as of December 31, 2018.

Interest Rate Risk

The Company is exposed to fluctuations in interest rates through its issuance of variable rate debt. Exposures to interest rate fluctuations may be mitigated by entering into derivative instruments known as interest rate swaps, caps, collars and put or call options. These contracts reduce exposure to interest rate volatility and result in primarily fixed rate debt obligations when taking into account the combination of the variable rate debt and the interest rate derivative instrument. See item 15 — Note 7, *Accounting for Derivative Instruments and Hedging Activities*, to the Consolidated Financial Statements for more information.

Most of the Company's project subsidiaries enter into interest rate swaps, intended to hedge the risks associated with interest rates on non-recourse project level debt. See Item 15 — Note 10, *Long-term Debt*, to the Consolidated Financial Statements for more information about interest rate swaps of the Company's project subsidiaries.

If all of the above swaps had been discontinued on December 31, 2018, the Company would have owed the counterparties $4 million. Based on the credit ratings of the counterparties, the Company believes its exposure to credit risk due to nonperformance by counterparties to its hedge contracts to be insignificant.

The Company has long-term debt instruments that subject it to the risk of loss associated with movements in market interest rates. As of December 31, 2018, a 1% change in interest rates would result in an approximately $3 million change in market interest expense on a rolling twelve-month basis.

As of December 31, 2018, the fair value of the Company's debt was $5,938 million and the carrying value was $6,038 million. The Company estimates that a 1% decrease in market interest rates would have increased the fair value of its long-term debt by $304 million.

Liquidity Risk

Liquidity risk arises from the general funding needs of the Company's activities and in the management of the Company's assets and liabilities.

Counterparty Credit Risk

Credit risk relates to the risk of loss resulting from non-performance or non-payment by counterparties pursuant to the terms of their contractual obligations. The Company monitors and manages credit risk through credit policies that include: (i) an established credit approval process, and (ii) the use of credit mitigation measures such as prepayment arrangements or volumetric limits. Risks surrounding counterparty performance and credit could ultimately impact the amount and timing of expected cash flows. The Company seeks to mitigate counterparty risk by having a diversified portfolio of counterparties. See Item 15 — Note 1, *Nature of Business*, and Note 6, *Fair Value of Financial Instruments*, to the Consolidated Financial Statements for more information about concentration of credit risk.

As previously described, on January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code. Certain subsidiaries of the Company sell the output of their facilities to PG&E under long-term PPAs, including interests in 6 solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW. The Company consolidates three of the solar facilities and Marsh Landing and records its interest in the other solar facilities as equity method investments. The Company had $17 million in accounts receivable for its consolidated projects as of December 31, 2018. All of these amounts were collected in January 2019.

Item 8 — Financial Statements and Supplementary Data

The financial statements and schedules are listed in Part IV, Item 15 of this Form 10-K.

Item 9 — Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A — Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures and Internal Control Over Financial Reporting

Under the supervision and with the participation of the Company's management, including its principal executive officer, principal financial officer and principal accounting officer, the Company conducted an evaluation of the effectiveness of the design and operation of its disclosure controls and procedures, as such term is defined in Rules 13a-15(e) or 15d-15(e) of the Exchange Act. Based on this evaluation, the Company's principal executive officer, principal financial officer and principal accounting officer concluded that the disclosure controls and procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

In connection with the GIP Transaction, the Company entered into a TSA pursuant to which NRG Energy, Inc. provided information technology, systems, applications, and business processes to the Company. Under the TSA with NRG Energy, Inc., the Company continued to review, document and evaluate the internal controls over financial reporting through year-end 2018. There were no other changes in the Company’s internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) during the quarter ended December 31, 2018, that materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Inherent Limitations over Internal Controls

The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with GAAP. The 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 Company's assets;
2. Provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with GAAP, and that the Company's receipts and expenditures are being made only in accordance with authorizations of its management and directors; 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 consolidated financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations, including the possibility of human error and circumvention by collusion or overriding of controls. Accordingly, even an effective internal control system may not prevent or detect material misstatements on a timely basis. 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.

Management's Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of the Company's management, including its principal executive officer, principal financial officer and principal accounting officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the Company's evaluation under the framework in *Internal Control — Integrated Framework (2013)*, the Company's management concluded that its internal control over financial reporting was effective as of December 31, 2018.

Item 9B — Other Information

None.

PART III

Item 10 — Directors, Executive Officers and Corporate Governance

Item 10 has been omitted from this report pursuant to the reduced disclosure format permitted by General Instruction I to Form 10-K.

Item 11 — Executive Compensation

Item 11 has been omitted from this report pursuant to the reduced disclosure format permitted by General Instruction I to Form 10-K.

Item 12 — Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Item 12 has been omitted from this report pursuant to the reduced disclosure format permitted by General Instruction I to Form 10-K.

Item 13 — Certain Relationships and Related Transactions, and Director Independence

Item 13 has been omitted from this report pursuant to the reduced disclosure format permitted by General Instruction I to Form 10-K.

Item 14 — Principal Accounting Fees and Services

Audit and Nonaudit Fees

The following table presents fees for professional services rendered by KPMG LLP, the Company's principal independent registered public accounting firm, for the years ended December 31, 2018 and December 31, 2017.

	Year Ended December 31,	
	2018	**2017**
Audit Fees	$ 1,682,000	$ 1,916,700
Audit-Related Fees	—	—
Tax Fees	14,800	12,700
All Other Fees	—	—
Total	$ 1,696,800	$ 1,929,400

Audit Fees

For 2018 and 2017 audit services, KPMG LLP billed the Company approximately $1,682,000 and $1,916,700, respectively, for the audit of the Company’s consolidated financial statements and the review of the Company’s quarterly consolidated financial statements on Form 10-Q that are customary under the standards of the Public Company Accounting Oversight Board (United States), and in connection with statutory audits.

Audit-Related Fees

There were no audit-related fees billed to the Company by KPMG LLP for 2018 or 2017.

Tax Fees

There were approximately $14,800 in tax fees billed to the Company by KPMG LLP for 2018, relating mainly to compliance work. There were approximately $12,700 in tax fees billed to the Company by KPMG LLP for 2017.

All Other Fees

There were no other fees billed to the Company by KPMG LLP for 2018 or 2017.

Policy on Audit Committee Pre-approval

The Audit Committee of Clearway Energy, Inc. is responsible for appointing, setting compensation for, and overseeing the work of the independent registered public accounting firm of the Company. The Audit Committee of Clearway Energy, Inc. has established a policy regarding pre-approval of all audit and permissible nonaudit services provided by the independent registered public accounting firm of the Company.

The Audit Committee of Clearway Energy, Inc. will annually review and pre-approve services that are expected to be provided by the independent registered public accounting firm. The term of the pre-approval will be 12 months from the date of the pre-approval, unless the Audit Committee of Clearway Energy, Inc. approves a shorter time period. The Audit Committee may periodically amend and/or supplement the pre-approved services based on subsequent determinations.

Unless the Audit Committee of Clearway Energy, Inc. has pre-approved Audit Services or a specified category of nonaudit services, any engagement to provide such services must be pre-approved by the Audit Committee of Clearway Energy, Inc. if it is to be provided by the independent registered public accounting firm. The Audit Committee of Clearway Energy, Inc. must also pre-approve any proposed services exceeding the pre-approved budgeted fee levels for a specified type of service.

The Audit Committee of Clearway Energy, Inc. has authorized its Chair to pre-approve services in amounts up to $100,000 per engagement. Engagements exceeding $100,000 must be approved by the full Audit Committee of Clearway Energy, Inc. Engagements pre-approved by the Chair are reported to the Audit Committee of Clearway Energy, Inc. at its next scheduled meeting.

PART IV

Item 15 — Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

The following consolidated financial statements of Clearway Energy LLC and related notes thereto, together with the reports thereon of KPMG LLP, are included herein:

Consolidated Statements of Operations — Years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Comprehensive Income — Years ended December 31, 2018, 2017 and 2016

Consolidated Balance Sheets — As of December 31, 2018 and 2017

Consolidated Statements of Cash Flows — Years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Members' Equity — Years ended December 31, 2018, 2017 and 2016

Notes to Consolidated Financial Statements

(a)(2) Not applicable

(a)(3) Exhibits: See Exhibit Index submitted as a separate section of this report

(b) Exhibits

See Exhibit Index submitted as a separate section of this report

(c) Not applicable

Report of Independent Registered Public Accounting Firm

The Members
Clearway Energy LLC:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Clearway Energy, LLC (and subsidiaries) (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2018, the Company adopted the guidance in Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers*, and related amendments.

Basis for Opinion

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

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

Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

(signed) KPMG LLP

We have served as the Company's auditor since 2012.

Philadelphia, Pennsylvania

February 28, 2019

CLEARWAY ENERGY LLC

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31,		
(In millions)	**2018**	**2017 [a]**	**2016 [a]**
Operating Revenues			
Total operating revenues	$ 1,053	$ 1,009	$ 1,035
Operating Costs and Expenses			
Cost of operations	332	326	308
Depreciation and amortization	331	334	303
Impairment losses	—	44	185
General and administrative	20	19	14
Acquisition-related transaction and integration costs	20	3	1
Development costs	3	—	—
Total operating costs and expenses	706	726	811
Operating Income	347	283	224
Other Income (Expense)			
Equity in earnings of unconsolidated affiliates	74	71	60
Other income, net	8	4	3
Loss on debt extinguishment	—	(3)	—
Interest expense	(294)	(294)	(272)
Total other expense, net	(212)	(222)	(209)
Net Income	135	61	15
Less: Net loss attributable to noncontrolling interests	(105)	(75)	(111)
Net Income Attributable to Clearway Energy LLC	$ 240	$ 136	$ 126

[a] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

See accompanying notes to consolidated financial statements.

CLEARWAY ENERGY LLC

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year ended December 31,		
	2018	2017 [(a)]	2016 [(a)]
(In millions)			
Net Income	$ 135	$ 61	$ 15
Other Comprehensive Income (Loss)			
Unrealized gain (loss) on derivatives	24	17	13
Other comprehensive income (loss)	24	17	13
Comprehensive Income	159	78	28
Less: Comprehensive loss attributable to noncontrolling interests	(105)	(75)	(111)
Comprehensive Income Attributable to Clearway Energy LLC	$ 264	$ 153	$ 139

[(a)] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

See accompanying notes to consolidated financial statements.

CLEARWAY ENERGY LLC

CONSOLIDATED BALANCE SHEETS

ASSETS	December 31, 2018	December 31, 2017 [a]
	(In millions)	
Current Assets		
Cash and cash equivalents	$ 407	$ 146
Restricted cash	176	168
Accounts receivable — trade	104	95
Accounts receivable — affiliates	5	1
Inventory	40	39
Notes receivable — current	—	13
Prepayments and other current assets	29	19
Total current assets	761	481
Property, plant and equipment, net	5,245	5,410
Other Assets		
Equity investments in affiliates	1,172	1,178
Intangible assets, net	1,156	1,228
Derivative instruments	8	1
Other non-current assets	106	62
Total other assets	2,442	2,469
Total Assets	$ 8,448	$ 8,360
LIABILITIES AND MEMBERS' EQUITY		
Current Liabilities		
Current portion of long-term debt — external	$ 314	$ 339
Current portion of long-term debt — affiliate	215	—
Accounts payable — trade	45	46
Accounts payable — affiliate	20	49
Derivative instruments	4	18
Accrued interest expense	44	38
Accrued expenses and other current liabilities	57	49
Total current liabilities	699	539
Other Liabilities		
Long-term debt — external	5,404	5,049
Long-term debt — affiliate	44	618
Derivative instruments	17	31
Other non-current liabilities	102	94
Total non-current liabilities	5,567	5,792
Total Liabilities	6,266	6,331
Commitments and Contingencies	—	—
Members' Equity		
Contributed capital	1,940	1,919
Retained earnings	86	16
Accumulated other comprehensive loss	(44)	(68)
Noncontrolling interest	200	162
Total Members' Equity	2,182	2,029
Total Liabilities and Members' Equity	$ 8,448	$ 8,360

[a] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

See accompanying notes to consolidated financial statements.

CLEARWAY ENERGY LLC

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2018	2017 [(a)]	2016 [(a)]
	(In millions)		
Cash Flows from Operating Activities			
Net income	$ 135	$ 61	$ 15
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in earnings of unconsolidated affiliates	(74)	(71)	(60)
Distributions from unconsolidated affiliates	70	72	58
Depreciation and amortization	331	334	303
Amortization of financing costs	13	13	8
Amortization of intangibles and out-of-market contracts	70	70	76
Loss on debt extinguishment	—	3	—
Impairment losses	—	44	185
Changes in derivative instruments	(16)	(15)	(15)
(Gain) loss on disposal of asset components	—	16	6
Cash provided by (used in) changes in other working capital:			
Changes in prepaid and accrued capacity payments	—	(4)	(8)
Changes in other working capital	(37)	(6)	9
Net Cash Provided by Operating Activities	492	517	577
Cash Flows from Investing Activities			
Acquisition of business	(11)	—	—
Acquisition of Drop Down Assets, net of cash acquired	(126)	(250)	(77)
Capital expenditures	(83)	(190)	(20)
Cash receipts from notes receivable	13	17	17
Return of investment from unconsolidated affiliates	45	47	28
Investments in unconsolidated affiliates	(34)	(73)	(83)
Other	11	7	4
Net Cash Used in Investing Activities	(185)	(442)	(131)
Cash Flows from Financing Activities			
Net contributions from noncontrolling interests	106	13	5
Net distributions and return of capital to NRG prior to the acquisition of Drop Down Assets	—	(23)	(184)
Proceeds from the issuance of class C units	153	33	—
Payments of distributions	(253)	(202)	(173)
Proceeds from the revolving credit facility	35	55	60
Payments for the revolving credit facility	(90)	—	(366)
Proceeds from issuance of long-term debt — external	827	210	740
Payments of debt issuance costs	(14)	(12)	(15)
Payments for long-term debt — external	(443)	(332)	(269)
Payments for long-term debt — affiliate	(359)	—	—
Net Cash Used in Financing Activities	(38)	(258)	(202)
Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash	269	(183)	244
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	314	497	253
Cash, Cash Equivalents and Restricted Cash at End of Period	$ 583	$ 314	$ 497
Supplemental Disclosures			
Interest paid, net of amount capitalized	$ (292)	$ (297)	$ (271)
Non-cash investing and financing activities:			
(Reductions) Additions to fixed assets for accrued capital expenditures	(15)	22	3
Non-cash contributions from CEG, NRG, net of distributions	$ 36	$ (2)	$ 90

(a) Retrospectively adjusted as discussed in Note 1, *Nature of Business.*

See accompanying notes to consolidated financial statements.

CLEARWAY ENERGY LLC

CONSOLIDATED STATEMENTS OF MEMBERS' EQUITY

(In millions)	Contributed Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Noncontrolling Interest	Total Members' Equity
Balances at December 31, 2015	$ 2,364	$ 107	$ (98)	$ 332	$ 2,705
Net income (loss) [(a)]	—	126	—	(111)	15
Unrealized gain on derivatives	—	—	13	—	13
Payment for CVSR Drop Down Asset	(77)	—	—	—	(77)
Distributions and returns of capital to NRG, net of contributions [(b)]	(182)	(2)	—	—	(184)
Capital contributions from NRG, net of distributions, non-cash [(a)]	99	(9)	—	—	90
Capital contributions from tax equity investors	—	—	—	5	5
Distributions paid to NRG on Class B and Class D units	—	(81)	—	—	(81)
Distributions paid to Clearway Energy, Inc., non-cash	—	(5)	—	—	(5)
Distributions paid to Clearway Energy, Inc.	—	(92)	—	—	(92)
Balances at December 31, 2016	$ 2,204	$ 44	$ (85)	$ 226	$ 2,389
Net income (loss) [(a)]	—	136	—	(75)	61
Unrealized gain on derivatives	—	—	17	—	17
Payments for the March 2017, August 2017 and November 2017 Drop Down Assets	(250)	—	—	—	(250)
August 2017 Drop Down Assets contingent consideration	(8)	—	—	—	(8)
Capital contributions from tax equity investors	—	—	—	11	11
Distributions paid to NRG, net of contributions [(a)]	(21)	—	—	—	(21)
Distributions paid to NRG, net of contributions, non-cash [(a)]	(8)	6	—	—	(2)
Proceeds from the issuance of Class C Common Stock	34	—	—	—	34
Distributions paid to NRG on Class B and Class D units	(6)	(88)	—	—	(94)
Distributions paid to Clearway Energy, Inc.	(26)	(82)	—	—	(108)
Balances at December 31, 2017	$ 1,919	$ 16	$ (68)	$ 162	$ 2,029
Net income (loss)	—	240	—	(105)	135
Unrealized gain on derivatives	—	—	24	—	24
Payment for the Buckthorn Solar Drop Down Asset and UPMC	(52)	—	—	—	(52)
Capital contributions from tax equity investors, net of distributions	—	—	—	106	106
Proceeds from the issuance of Class C units	153	—	—	—	153
Distributions paid to NRG, net of contributions	(11)	—	—	—	(11)
Contributions from CEG, NRG, net of distributions, non-cash	(1)	—	—	37	36
Distributions paid to NRG/CEG on Class B and Class D units	—	(108)	—	—	(108)
Distributions paid to Clearway Energy, Inc.	(68)	(62)	—	—	(130)
Balances at December 31, 2018	$ 1,940	$ 86	$ (44)	$ 200	$ 2,182

[(a)] Retrospectively adjusted as discussed in Note 1, *Nature of Business.*

See accompanying notes to consolidated financial statements.

CLEARWAY ENERGY LLC

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 — Nature of Business

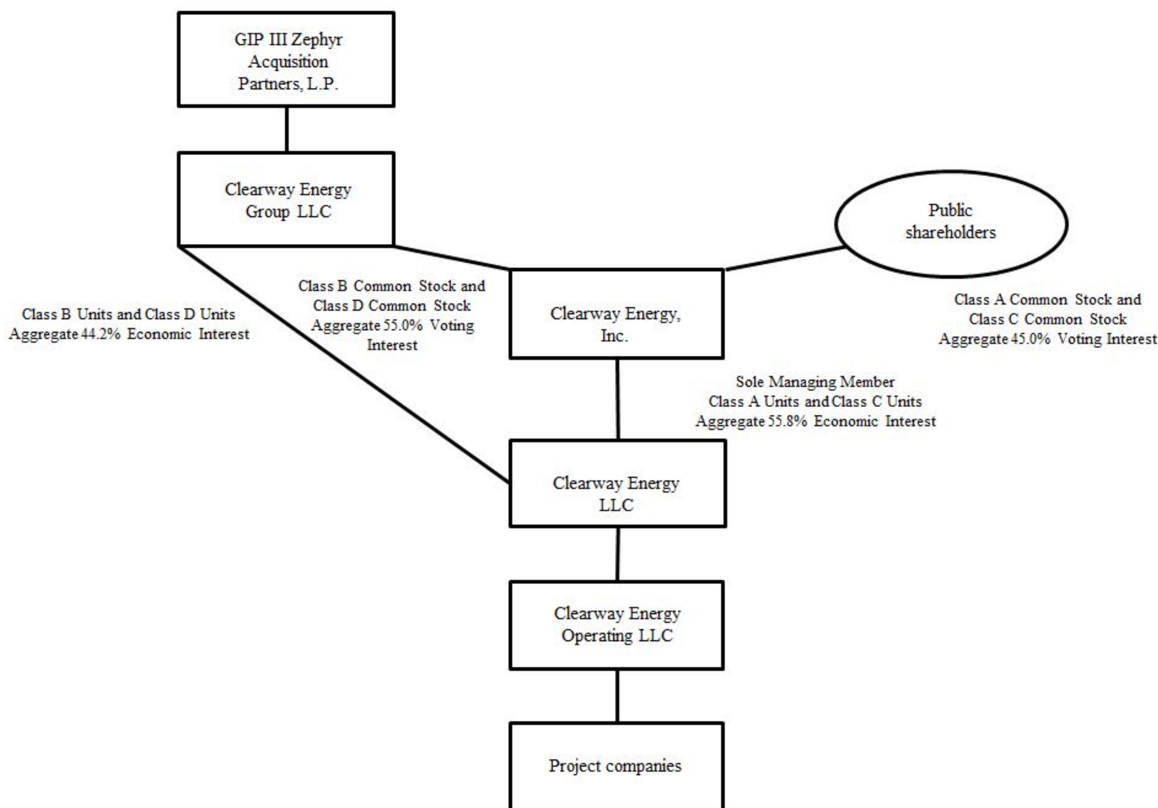
Clearway Energy LLC (formerly NRG Yield LLC), together with its consolidated subsidiaries, or the Company, was formed by NRG as a Delaware limited liability company on March 5, 2013, to serve as the primary vehicle through which NRG owns, operates and acquires contracted renewable and conventional generation and thermal infrastructure assets. On August 31, 2018, NRG Energy, Inc., or NRG, transferred its full ownership interest in Clearway Energy, Inc. (formerly NRG Yield, Inc.) to Clearway Energy Group LLC, or CEG, the holder of NRG's renewable energy development and operations platform, and subsequently sold 100% of its interest in CEG to Global Infrastructure Partners III, or GIP, referred to hereinafter as the GIP Transaction. As a result of the GIP Transaction, GIP indirectly acquired a 45.2% economic interest in the Company and a 55% voting interest in the Clearway Energy, Inc. GIP is an independent fund manager that invests in infrastructure assets in energy and transport sectors. The Company is sponsored by GIP through GIP's portfolio company, Clearway Energy Group.

The Company's environmentally-sound asset portfolio includes over 5,272 MW of wind, solar and natural gas-fired power generation facilities, as well as district energy systems. Nearly all of these assets sell substantially all of their output pursuant to long-term offtake agreements with creditworthy counterparties. The weighted average remaining contract duration of these offtake agreements was approximately 15 years as of December 31, 2018 based on CAFD. The Company also owns thermal infrastructure assets with an aggregate steam and chilled water capacity of 1,385 net MWt and electric generation capacity of 133 net MW. These thermal infrastructure assets provide steam, hot and/or chilled water, and, in some instances, electricity to commercial businesses, universities, hospitals and governmental units in multiple locations, principally through long-term contracts or pursuant to rates regulated by state utility commissions.

The Company consolidates the results of Clearway Energy LLC through its controlling interest, with CEG's interest shown as noncontrolling interest in the financial statements. The holders of Clearway Energy, Inc.'s outstanding shares of Class A and Class C common stock are entitled to dividends as declared. CEG receives its distributions from Clearway Energy LLC through its ownership of Clearway Energy LLC Class B and Class D units.

As a result of the Clearway Energy, Inc. Class C common stock issuances during the year ended December 31, 2018, Clearway Energy, Inc. currently owns 55.8% of the economic interests of the Company, with CEG retaining 44.2% of the economic interests of the Company.

The following table represents the structure of the Company as of December 31, 2018:



On January 29, 2019, Pacific Gas and Electric, or PG&E, filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code. Certain subsidiaries of the Company, holding interests in 6 solar facilities totaling 480 MW and Marsh Landing with capacity of 720 MW, sell the output of their facilities to PG&E, under long-term PPAs. The Company consolidates three of the solar facilities and Marsh Landing and records its interest in the other solar facilities as equity method investments. The related subsidiaries of the Company have entered into financing agreements consisting of non-recourse project level debt and in certain cases, non-recourse holding company debt. The effect of the bankruptcy filing on the Company's operations is further described in Note 2, *Summary of Significant Accounting Policies*, Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities*, and Note 10, *Long-Term Debt* to the Consolidated Financial Statements.

Substantially all of the Company's generation assets are under long-term contractual arrangements for the output or capacity from these assets. The thermal assets are comprised of district energy systems and combined heat and power plants that produce steam, hot water and/or chilled water and, in some instances, electricity at a central plant. Certain district energy systems are subject to rate regulation by state public utility commissions (although they may negotiate certain rates) while the other district energy systems have rates determined by negotiated bilateral contracts. For the complete listing of the company's generation assets, refer to Item 2 - *Properties* to this Form 10-K.

Recast of the Historical Financial Statements

Prior to the GIP Transaction on August 31, 2018, the Company completed several acquisitions of Drop Down Assets from NRG, which were accounted for as transfer of entities under common control, and are further described in Note 3, *Business Acquisitions*. The accounting guidance for transfers of entities under common control requires retrospective combination of the entities for all periods presented as if the combinations had been in effect from the beginning of the financial statement period or from the date the entities were under common control (if later than the beginning of the financial statement period).

Transition Services Agreement

As a result of the GIP Transaction, the Company entered into a Transition Services Agreement with NRG, or the NRG TSA, pursuant to which NRG or certain of its affiliates began providing transitional services to the Company following the consummation of the GIP Transaction, in exchange for the payment of a fee in respect of such services. The agreement is effective until the earlier of June 30, 2019 or the date that all services are terminated by the Company. The Company may extend the term on a month-by-month basis no later than March 31, 2020 for a fixed monthly fee provided for in the agreement. Expenses related to the NRG TSA are recorded in general and administrative expenses in the consolidated statements of operations.

Note 2 — Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The Company's consolidated financial statements have been prepared in accordance with GAAP. The ASC is the source of authoritative GAAP to be applied by nongovernmental entities. In addition, the rules and interpretative releases of the SEC under authority of federal securities laws are also sources of authoritative GAAP for SEC registrants.

The consolidated financial statements include the Company's accounts and operations and those of its subsidiaries in which it has a controlling interest. All significant intercompany transactions and balances have been eliminated in consolidation. The usual condition for a controlling financial interest is ownership of a majority of the voting interests of an entity. However, a controlling financial interest may also exist through arrangements that do not involve controlling voting interests. As such, the Company applies the guidance of ASC 810, *Consolidations,* or ASC 810, to determine when an entity that is insufficiently capitalized or not controlled through its voting interests, referred to as a variable interest entity, or VIE, should be consolidated.

Cash and Cash Equivalents, and Restricted Cash

Cash and cash equivalents include highly liquid investments with an original maturity of three months or less at the time of purchase. Cash and cash equivalents held at project subsidiaries was $109 million and $124 million as of December 31, 2018 and 2017, respectively.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same such amounts shown in the statements of cash flows.

	Year ended December 31,		
	2018	2017	2016
	(In millions)		
Cash and cash equivalents	$ 407	$ 146	$ 321
Restricted cash	176	168	176
Cash, cash equivalents and restricted cash shown in the statement of cash flows	583	314	497

Restricted cash consists primarily of funds held to satisfy the requirements of certain debt agreements and funds held within the Company's projects that are restricted in their use. As of December 31, 2018, these restricted funds comprised of $84 million designated to fund operating expenses, approximately $26 million designated for current debt service payments, and $32 million restricted for reserves including debt service, performance obligations and other reserves, as well as capital expenditures. The remaining $34 million is held in distribution reserve accounts, of which $31 million related to subsidiaries affected by the PG&E Bankruptcy as discussed further below and may not be distributed during the pendency of the bankruptcy.

On January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code. The Company has non-recourse project-level debt related to each of its subsidiaries that sell their output to PG&E under long-term PPAs. The PG&E bankruptcy filing is an event of default under the related financing agreements. As of December 31, 2018, all project level cash balances for these subsidiaries were classified as restricted cash.

Trade Receivables and Allowance for Doubtful Accounts

Trade receivables are reported on the balance sheet at the invoiced amount adjusted for any write-offs and the allowance for doubtful accounts. The allowance for doubtful accounts is reviewed periodically based on amounts past due and significance. The allowance for doubtful accounts was immaterial as of December 31, 2018 and 2017.

Inventory

Inventory consists principally of spare parts and fuel oil. Spare parts inventory is valued at weighted average cost, unless evidence indicates that the weighted average cost will not be recovered with a normal profit in the ordinary course of business. Fuel oil inventory is valued at the lower of weighted average cost or market. The Company removes fuel inventories as they are used in the production of steam, chilled water or electricity. Spare parts inventory are removed when they are used for repairs, maintenance or capital projects.

Property, Plant and Equipment

Property, plant and equipment are stated at cost or, in the case of third party business acquisitions, fair value; however impairment adjustments are recorded whenever events or changes in circumstances indicate that their carrying values may not be recoverable. Significant additions or improvements extending asset lives are capitalized as incurred, while repairs and maintenance that do not improve or extend the life of the respective asset are charged to expense as incurred. Depreciation is computed using the straight-line method over the estimated useful lives. Certain assets and their related accumulated depreciation amounts are adjusted for asset retirements and disposals with the resulting gain or loss included in cost of operations in the consolidated statements of operations. For further discussion of the Company's property, plant and equipment refer to Note 4, *Property, Plant and Equipment* to the Consolidated Financial Statements.

Development costs include project development costs, which are expensed in the preliminary stages of a project and
capitalized when the project is deemed to be commercially viable. Commercial viability is determined by one or a series of actions including, among others, Board of Director approval pursuant to a formal project plan that subjects the Company to significant future obligations that can only be discharged by the use of a Company asset. When a project is available for operations, capitalized interest and capitalized project development costs are reclassified to property, plant and equipment and depreciated on a straightline basis over the estimated useful life of the project's related assets. Capitalized costs are charged to expense if a project is abandoned or management otherwise determines the costs to be unrecoverable.

Asset Impairments

Long-lived assets that are held and used are reviewed for impairment whenever events or changes in circumstances indicate carrying values may not be recoverable. Such reviews are performed in accordance with ASC 360. An impairment loss is indicated if the total future estimated undiscounted cash flows expected from an asset are less than its carrying value. An impairment charge is measured by the difference between an asset's carrying amount and fair value with the difference recorded in operating costs and expenses in the statements of operations. Fair values are determined by a variety of valuation methods, including appraisals, sales prices of similar assets and present value techniques. For further discussion of the Company's long-lived asset impairments, refer to Note 9, *Asset Impairments* to the Consolidated Financial Statements.

Investments accounted for by the equity method are reviewed for impairment in accordance with ASC 323, *Investments-Equity Method and Joint Ventures*, which requires that a loss in value of an investment that is an other-than-temporary decline should be recognized. The Company identifies and measures losses in the value of equity method investments based upon a comparison of fair value to carrying value.

Debt Issuance Costs

Debt issuance costs are capitalized and amortized as interest expense on a basis which approximates the effective interest method over the term of the related debt. Debt issuance costs related to the long term debt are presented as a direct deduction from the carrying amount of the related debt in both the current and prior periods. Debt issuance costs related to the senior secured revolving credit facility line of credit are recorded as a non-current asset on the balance sheet and are amortized over the term of the credit facility.

Notes Receivable

Notes receivable consist of receivables related to the financing of required network upgrades. The notes issued with respect to network upgrades will be repaid within a 5-year period following the date each facility reached commercial operations.

Intangible Assets

Intangible assets represent contractual rights held by the Company. The Company recognizes specifically identifiable intangible assets including power purchase agreements, leasehold improvements, customer relationships, customer contracts, and development rights when specific rights and contracts are acquired. These intangible assets are amortized primarily on a straight-line basis. For further discussion of the Company's intangible assets, refer to Note 8, *Intangible Assets* to the Consolidated Financial Statements.

Income Taxes

The Company is classified as a partnership for federal and state income tax purposes. Therefore, federal and state income taxes are assessed at the partner level. Accordingly, no provision has been made for federal or state income taxes in the accompanying financial statements.

Revenue Recognition

Revenue from Contracts with Customers

On January 1, 2018, the Company adopted the guidance in ASC 606, *Revenue from Contracts with Customers,* or Topic 606, using the modified retrospective method applied to contracts which were not completed as of the adoption date, with no adjustment required to the financial statements upon adoption. Following the adoption of the new standard, the Company's revenue recognition of its contracts with customers remains materially consistent with its historical practice. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. The Company's policies with respect to its various revenue streams are detailed below. In general, the Company applies the invoicing practical expedient to recognize revenue for the revenue streams detailed below, except in circumstances where the invoiced amount does not represent the value transferred to the customer.

Thermal Revenues

Steam and chilled water revenue is recognized as the Company transfers the product to the customer, based on customer usage as determined by meter readings taken at month-end. Some locations read customer meters throughout the month, and recognize estimated revenue for the period between meter read date and month-end. For thermal contracts, the Company's performance obligation to deliver steam and chilled water is satisfied over time and revenue is recognized based on the invoiced amount. The Thermal Business subsidiaries collect and remit state and local taxes associated with sales to their customers, as required by governmental authorities. These taxes are presented on a net basis in the income statement.

As contracts for steam and chilled water are long-term contracts, the Company has performance obligations under these contracts that have not yet been satisfied. These performance obligations have transaction prices that are both fixed and variable, and that vary based on the contract duration, customer type, inception date and other contract-specific factors. For the fixed price contracts, the Company cannot accurately estimate the amount of its unsatisfied performance obligations as it will vary based on customer usage, which will depend on factors such as weather and customer activity.

Power Purchase Agreements, or PPAs

The majority of the Company's revenues are obtained through PPAs or other contractual agreements. Energy, capacity and where applicable, renewable attributes, from the majority of the Company's renewable energy assets and certain conventional energy plants is sold through long-term PPAs and tolling agreements to a single counterparty, which is often a utility or commercial customer. The majority of these PPAs are accounted for as leases. ASC 840 requires the minimum lease payments received to be amortized over the term of the lease and contingent rentals are recorded when the achievement of the contingency becomes probable. Judgment is required by management in determining the economic life of each generating facility, in evaluating whether certain lease provisions constitute minimum payments or represent contingent rent and other factors in determining whether a contract contains a lease and whether the lease is an operating lease or capital lease.

Certain of these leases have no minimum lease payments and all of the rental income under these leases is recorded as contingent rent on an actual basis when the electricity is delivered. The contingent rental income recognized in the years ended December 31, 2018, 2017 and 2016 was $583 million, $559 million and $583 million, respectively. These balances include intercompany revenue for Elbow Creek of $6 million for the eight months ended August 31, 2018 and $8 million for each of the years ended December 31, 2017 and 2016, as further discussed in Note 13 *Related Party Transactions*.

Renewable Energy Credits, or RECs

As stated above, renewable energy credits, or RECs, are usually sold through long-term PPAs. Revenue from the sale of self-generated RECs is recognized when the related energy is generated and simultaneously delivered even in cases where there is a certification lag as it has been deemed to be perfunctory.

In a bundled contract to sell energy, capacity and/or self-generated RECs, all performance obligations are deemed to be delivered at the same time and hence, timing of recognition of revenue for all performance obligations is the same and occurs over time. In such cases, it is often unnecessary to allocate transaction price to multiple performance obligations.

Sale of Emission Allowances

The Company records its bank of emission allowances as part of intangible assets. From time to time, management may authorize the transfer of emission allowances in excess of usage from the Company's emission bank to intangible assets held-for-sale for trading purposes. The Company records the sale of emission allowances on a net basis within operating revenue in the Company's consolidated statements of operations.

Disaggregated Revenues

The following tables represent the Company’s disaggregation of revenue from contracts with customers for the year ended December 31, 2018, along with the reportable segment for each category:

	Year ended December 31, 2018				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Energy revenue[a]	$ 5	$ 572	$ 4	—	$ 581
Capacity revenue[a]	337	—	166	—	503
Other revenues	—	16	26	(3)	39
Contract amortization	(5)	(62)	(3)	—	(70)
Total operating revenue	337	526	193	(3)	1,053
Less: Lease revenue	(342)	(534)	(2)	—	(878)
Less: Contract amortization	5	62	3	—	70
Total revenue from contracts with customers	$ —	$ 54	$ 194	(3)	$ 245

[a] The following amounts of energy and capacity revenue relate to leases and are accounted for under ASC 840:

	Conventional Generation	Renewables	Thermal	Total
Energy Revenue	$ 5	$ 534	$ 2	$ 541
Capacity Revenue	337	—	—	337
	342	534	2	878

Contract Amortization

Assets and liabilities recognized from power sales agreements assumed through acquisitions related to the sale of electric capacity and energy in future periods for which the fair value has been determined to be significantly less (more) than market are amortized to revenue over the term of each underlying contract based on actual generation and/or contracted volumes or on a straight-line basis, where applicable.

Contract Balances

The following table reflects the contract assets and liabilities included on the Company’s balance sheet as of December 31, 2018:

(In millions)	**December 31, 2018**	**December 31, 2017**
Accounts receivable, net - Contracts with customers	$ 35	$ 28
Accounts receivable, net - Leases	69	67
Total accounts receivable, net	$ 104	$ 95

Derivative Financial Instruments

The Company accounts for derivative financial instruments under ASC 815, *Derivatives and Hedging*, or ASC 815, which requires the Company to record all derivatives on the balance sheet at fair value unless they qualify for a NPNS exception. Changes in the fair value of non-hedge derivatives are immediately recognized in earnings. Changes in the fair value of derivatives accounted for as hedges, if elected for hedge accounting, are either:

- Recognized in earnings as an offset to the changes in the fair value of the related hedged assets, liabilities and firm commitments; or

- Deferred and recorded as a component of accumulated OCI until the hedged transactions occur and are recognized in earnings.

The Company's primary derivative instruments are interest rate instruments used to mitigate variability in earnings due to fluctuations in interest rates, power purchase or sale contracts used to mitigate variability in earnings due to fluctuations in market prices and fuels purchase contracts used to control customer reimbursable fuel cost. On an ongoing basis, the Company qualitatively assesses the effectiveness of its derivatives that are designated as hedges for accounting purposes in order to determine that each derivative continues to be highly effective in offsetting changes in cash flows of hedged items. If necessary, the Company will perform an analyses to measure the statistical correlation between the derivative and the associated hedged item determine the effectiveness of such a contract designated as a hedge. The Company will discontinue hedge accounting if it is determined that the hedge is no longer effective. In this case, the gain or loss previously deferred in accumulated OCI would be frozen until the underlying hedged item is delivered unless the transaction being hedged is no longer probable of occurring in which case the amount in OCI would be immediately reclassified into earnings. If the derivative instrument is terminated, the effective portion of this derivative deferred in accumulated OCI will be frozen until the underlying hedged item is delivered.

Revenues and expenses on contracts that qualify for the NPNS exception are recognized when the underlying physical transaction is delivered. While these contracts are considered derivative financial instruments under ASC 815, they are not recorded at fair value, but on an accrual basis of accounting. If it is determined that a transaction designated as NPNS no longer meets the scope exception, the fair value of the related contract is recorded on the balance sheet and immediately recognized through earnings.

Concentrations of Credit Risk

Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of accounts receivable, notes receivable and derivative instruments, which are concentrated within entities engaged in the energy and financial industry. These industry concentrations may impact the overall exposure to credit risk, either positively or negatively, in that the customers may be similarly affected by changes in economic, industry or other conditions. In addition, many of the Company's projects have only one customer. See Item 1A, Risk Factors, *Risks related to the PG&E Bankruptcy* for a discussion on the Company’s dependence on major customers. See Note 6, *Fair Value of Financial Instruments,* for a further discussion of derivative concentrations and Note 12, *Segment Reporting,* for concentration of counterparties.

Fair Value of Financial Instruments

The carrying amount of cash and cash equivalents, restricted cash, accounts receivable, accounts receivable - affiliate, accounts payable, current portion of account payable - affiliate, and accrued expenses and other current liabilities approximate fair value because of the short-term maturity of these instruments. See Note 6, *Fair Value of Financial Instruments,* for a further discussion of fair value of financial instruments.

Asset Retirement Obligations

Asset retirement obligations, or AROs, are accounted for in accordance with ASC 410-20, *Asset Retirement Obligations,* or ASC 410-20. Retirement obligations associated with long-lived assets included within the scope of ASC 410-20 are those for which a legal obligation exists under enacted laws, statutes, and written or oral contracts, including obligations arising under the doctrine of promissory estoppel, and for which the timing and/or method of settlement may be conditional on a future event. ASC 410-20 requires an entity to recognize the fair value of a liability for an ARO in the period in which it is incurred and a reasonable estimate of fair value can be made.

Upon initial recognition of a liability for an ARO, the asset retirement cost is capitalized by increasing the carrying amount of the related long-lived asset by the same amount. Over time, the liability is accreted to its future value, while the capitalized cost is depreciated over the useful life of the related asset. The Company's AROs are primarily related to the future dismantlement of equipment on leased property and environmental obligations related to site closures and fuel storage facilities. The Company records AROs as part of other non-current liabilities on its balance sheet.

The following table represents the balance of ARO obligations as of December 31, 2018 and 2017, along with the additions and accretion related to the Company's ARO obligations for the year ended December 31, 2018:

	(In millions)
Balance as of December 31, 2017	$ 58
Revisions in estimates for current obligations/Additions	5
Accretion — expense	4
Balance as of December 31, 2018	$ 67

Guarantees

The Company enters into various contracts that include indemnification and guarantee provisions as a routine part of its business activities. Examples of these contracts include operation and maintenance agreements, service agreements, commercial sales arrangements and other types of contractual agreements with vendors and other third parties, as well as affiliates. These contracts generally indemnify the counterparty for tax, environmental liability, litigation and other matters, as well as breaches of representations, warranties and covenants set forth in these agreements. Because many of the guarantees and indemnities the Company issues to third parties and affiliates do not limit the amount or duration of its obligations to perform under them, there exists a risk that the Company may have obligations in excess of the amounts agreed upon in the contracts mentioned above. For those guarantees and indemnities that do not limit the liability exposure, the Company may not be able to estimate what the liability would be, until a claim is made for payment or performance, due to the contingent nature of these contracts.

Investments Accounted for by the Equity Method

The Company has investments in various energy projects accounted for by the equity method, several of which are VIEs, where the Company is not a primary beneficiary, as described in Note 5, *Investments Accounted for by the Equity Method and Variable Interest Entities*. The equity method of accounting is applied to these investments in affiliates because the ownership structure prevents the Company from exercising a controlling influence over the operating and financial policies of the projects. Under this method, equity in pre-tax income or losses of the investments is reflected as equity in earnings of unconsolidated affiliates. Distributions from equity method investments that represent earnings on the Company's investment are included within cash flows from operating activities and distributions from equity method investments that represent a return of the Company's investment are included within cash flows from investing activities.

Sale Leaseback Arrangements

The Company is party to sale-leaseback arrangements that provide for the sale of certain assets to a third party and simultaneous leaseback to the Company. In accordance with ASC 840-40, *Sale-Leaseback Transactions*, if the seller-lessee retains, through the leaseback, substantially all of the benefits and risks incident to the ownership of the property sold, the sale-leaseback transaction is accounted for as a financing arrangement. An example of this type of continuing involvement would include an option to repurchase the assets or the buyer-lessor having the option to sell the assets back to the Company. This provision is included in most of the Company’s sale-leaseback arrangements. As such, the Company accounts for these arrangements as financings.

Under the financing method, the Company does not recognize as income any of the sale proceeds received from the lessor that contractually constitutes payment to acquire the assets subject to these arrangements. Instead, the sale proceeds received are accounted for as financing obligations and leaseback payments made by the Company are allocated between interest expense and a reduction to the financing obligation. Interest on the financing obligation is calculated using the Company’s incremental borrowing rate at the inception of the arrangement on the outstanding financing obligation. Judgment is required to determine the appropriate borrowing rate for the arrangement and in determining any gain or loss on the transaction that would be recorded either at the end of or over the lease term.

Business Combinations

The Company accounts for its business combinations in accordance with ASC 805, *Business Combinations,* or ASC 805. For third party acquisitions, ASC 805 requires an acquirer to recognize and measure in its financial statements the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree at fair value at the acquisition date. It also recognizes and measures the goodwill acquired or a gain from a bargain purchase in the business combination and determines what information to disclose to enable users of an entity's financial statements to evaluate the nature and financial effects of the business combination. In addition, transaction costs are expensed as incurred. For acquisitions that relate to entities under common control, ASC 805 requires retrospective combination of the entities for all periods presented as if the combination has been in effect from the beginning of the financial statement period of from the date the entities were under common control (if later than the beginning of the financial statement period). The difference between the cash paid and historical value of the entities' equity is recorded as a distribution/contribution from/to NRG with the offset to contributed capital. Transaction costs are expensed as incurred.

Use of Estimates

The preparation of consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions. These estimates and assumptions impact the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the consolidated financial statements. They also impact the reported amounts of net earnings during the reporting periods. Actual results could be different from these estimates.

In recording transactions and balances resulting from business operations, the Company uses estimates based on the best information available. Estimates are used for such items as plant depreciable lives, uncollectible accounts, environmental liabilities, acquisition accounting and legal costs incurred in connection with recorded loss contingencies, among others. In addition, estimates are used to test long-lived assets for impairment and to determine the fair value of impaired assets. As better information becomes available or actual amounts are determinable, the recorded estimates are revised. Consequently, operating results can be affected by revisions to prior accounting estimates.

Tax Equity Arrangements

Certain portions of the Company’s noncontrolling interests in subsidiaries represent third-party interests in the net assets under certain tax equity arrangements, which are consolidated by the Company, that have been entered into to finance the cost of wind facilities eligible for certain tax credits. Additionally, certain portions of the Company’s investments in unconsolidated affiliates reflect the Company’s interests in tax equity arrangements, that are not consolidated by the Company, that have been entered into to finance the cost of distributed solar energy systems under operating leases or PPAs eligible for certain tax credits. The Company has determined that the provisions in the contractual agreements of these structures represent substantive profit sharing arrangements. Further, the Company has determined that the appropriate methodology for calculating the noncontrolling interest and investment in unconsolidated affiliates that reflects the substantive profit sharing arrangements is a balance sheet approach utilizing the hypothetical liquidation at book value, or HLBV, method. Under the HLBV method, the amounts reported as noncontrolling interests and investment in unconsolidated affiliates represent the amounts the investors to the tax equity arrangements would hypothetically receive at each balance sheet date under the liquidation provisions of the contractual agreements, assuming the net assets of the funding structures were liquidated at their recorded amounts determined in accordance with GAAP. The investors’ interests in the results of operations of the funding structures are determined as the difference in noncontrolling interests and investment in unconsolidated affiliates at the start and end of each reporting period, after taking into account any capital transactions between the structures and the funds’ investors. The calculations utilized to apply the HLBV method include estimated calculations of taxable income or losses for each reporting period.

Recent Accounting Developments - Adopted in 2019

ASU 2016-02 — In February 2016, the FASB issued ASU No. 2016-02, *Leases* (Topic 842), or Topic 842, as amended, with the objective to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and to improve financial reporting by expanding the related disclosures. The guidance in Topic 842 provides that a lessee that may have previously accounted for a lease as an operating lease under current GAAP should recognize the assets and liabilities that arise from a lease on the balance sheet. In addition, Topic 842 expands the required quantitative and qualitative disclosures with regards to lease arrangements.

The Company adopted the standard effective January 1, 2019 using the modified retrospective transition method and will not restate prior periods for the impact of Topic 842. In addition, the Company elected certain of the permitted practical expedients, including the expedient that permits the Company to retain its existing lease assessment and classification. The company will not record a right-of-use asset and related lease liability for leases with an initial term of 12 months or less and will account for lease and non-lease components for specific asset classes as a single lease component.

The Company's leases consist mainly of land leases for many operating asset locations, as well as leases of office space and office equipment. The Company estimates it will record lease liabilities of approximately $160 million to $170 million and right-of-use assets of approximately $155 million to $165 million, as of January 1, 2019, with an immaterial impact estimated to retained earnings. The actual amounts recorded may vary from this estimate as the Company completes its adoption of the guidance. Other than disclosed, the Company does not expect that there will be a material impact to the consolidated statements of operations, comprehensive income or consolidated cash flows as a result of adoption of this new guidance.

Note 3 — Business Acquisitions

2018 Acquisitions

UPMC Thermal Project Asset Acquisition **—** On June 19, 2018, upon reaching substantial completion, the Company acquired from NRG the UPMC Thermal Project for cash consideration of $84 million, subject to working capital adjustments. The Company had a payable of $4 million to NRG as of December 31,2018, $3 million of which was paid in January 2019 upon final completion of the project pursuant to the EPC agreement. The project adds 73 MWt of thermal equivalent capacity and 7.5 MW of emergency backup electrical capacity to the Company's portfolio. The transaction is reflected in the Company's Thermal segment. The acquisition was funded with the proceeds from the sale of the Series E Notes and Series F Notes, as further described in Note 7, *Long-term Debt*. The assets transferred to the Company relate to interests under common control by NRG and were recorded at book value in accordance with ASC 805-50, *Business Combinations - Related Issues*. The difference between the purchase price and book value of the assets was recorded as a distribution to NRG and decreased the balance of contributed capital. The acquisition was determined to be an asset acquisition and not a business combination, therefore no recast of the historical financial information was deemed necessary.

Central CA Fuel Cell 1, LLC **—** On April 18, 2018, the Company acquired the Central CA Fuel Cell 1, LLC project in Tulare, California from FuelCell Energy Finance, Inc., for cash consideration of $11 million, subject to working capital adjustments. The project adds 2.8 MW of thermal capacity to the Company's portfolio, with a 20-year PPA contract with the City of Tulare. The transaction is reflected in the Company's Thermal segment.

Buckthorn Solar Drop Down Asset **—** On March 30, 2018, the Company acquired 100% of NRG's interests in Buckthorn Renewables, LLC, which owns a 154 MW construction-stage utility-scale solar generation project located in Texas, or the Buckthorn Solar Drop Down Asset, for cash consideration of approximately $42 million, subject to working capital adjustments. The Company also assumed non-recourse debt of $183 million and non-controlling interest of $19 million (as of acquisition date) attributable to the Class A member, as further described below. The Company converted $132 million of non-recourse debt to a term loan and the remainder of the outstanding debt was paid down with the contribution from the Class A member in the amount of $80 million upon the project reaching substantial completion in May 2018. The purchase price for the Buckthorn Solar Drop Down Asset was funded with cash on hand and borrowings from the Company's revolving credit facility. The assets and liabilities transferred to the Company related to interests under common control by NRG and were recorded at historical cost in accordance with ASC 805-50, *Business Combinations - Related Issues*. The difference between the cash paid and historical value of the entities' equity was recorded as a distribution to NRG and decreased the balance of contributed capital. Since the transaction constituted a transfer of net assets under common control, the guidance requires retrospective combination of the entities for all periods presented as if the combination had been in effect since the inception of common control.

Buckthorn Solar Portfolio, LLC, a wholly owned subsidiary of Buckthorn Renewables, LLC, is the Class B member in a tax equity partnership, Buckthorn Holdings, LLC, the owner of the Buckthorn Solar Drop Down Asset. The Class A member is a tax equity investor, or TE investor, who receives 99% of allocations of taxable income and other items through the six month anniversary of the placed in service date, at which time the allocations change to 67% through the last calendar year before the flip point, and then back to 99% through the flip point (which occurs when the TE Investor obtains a specified return on its initial investment), at which time the allocations to the TE Investor change to 5% for all the periods thereafter. Before the flip point, the TE investor would receive a priority distribution of distributable cash, as defined, plus a percentage of remaining distributable cash after the priority distribution subject to a percentage cap.

The project sells power under a 25-year PPA to the City of Georgetown, Texas, which commenced in July 2018.

The following is a summary of net assets transferred in connection with the acquisition of the Buckthorn Solar Drop Down Asset as of March 31, 2018:

	(In millions)
Assets:	
Current assets	$ 20
Property, plant and equipment	212
Non-current assets	3
Total assets	235
Liabilities:	
Debt (Current and non-current) [(a)]	176
Other current and non-current liabilities	15
Total liabilities	191
Less: noncontrolling interest	19
Net assets acquired	$ 25

[(a)] Net of $7 million of net debt issuance costs.

The following table presents a summary of the Company's historical information for the year ended December 31, 2017, which combines the financial information for the Buckthorn Solar Drop Down Asset transferred in connection with the acquisition.

	Year ended December 31, 2017		
(In millions)	As Previously Reported	Buckthorn Solar Drop Down Asset	As Currently Reported
Total operating revenues	$ 1,009	$ —	$ 1,009
Operating income	283	—	283
Net income	62	(1)	61
Net income attributable to Clearway Energy LLC	137	(1)	136

The Buckthorn Solar Drop Down Asset had no impact on the Company's consolidated statements of operations for the year end ended December 31, 2016.

2017 Acquisitions

November 2017 Drop Down Assets — On November 1, 2017, the Company acquired a 38 MW solar portfolio primarily comprised of assets from NRG's Solar Power Partners (SPP) funds and other projects developed by NRG, for cash consideration of $74 million, including working capital adjustments, plus assumed non-recourse debt of $26 million.

The purchase price for the November 2017 Drop Down Assets was funded with cash on hand. The assets and liabilities transferred to the Company relate to interests under common control by NRG and were recorded at historical cost in accordance with ASC 805-50, *Business Combinations - Related Issues*. The difference between the cash paid and historical value of the entities' equity was recorded as a contribution from NRG and increased the balance of contributed capital. Since the transaction constituted a transfer of net assets under common control, the guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect since the inception of common control.

August 2017 Drop Down Assets — On August 1, 2017, the Company acquired the remaining 25% interest in Wind TE Holdco, a portfolio of 12 wind projects, from NRG for total cash consideration of $44 million, including working capital adjustments. The purchase agreement also included potential additional payments to NRG dependent upon actual energy prices for merchant periods beginning in 2027, which were estimated and accrued as contingent consideration in the amount of $8 million.

The Company originally acquired 75% of Wind TE Holdco on November 3, 2015, or November 2015 Drop Down Assets, which were consolidated with 25% of the net assets recorded as noncontrolling interest. The assets and liabilities transferred to the Company related to interests under common control by NRG and were recorded at historical cost in accordance with ASC 805-50, *Business Combination - Related Issues.* As the Company had reflected NRG's 25% ownership of Wind TE Holdco in

noncontrolling interest, the difference between the cash paid of $44 million, net of the contingent consideration of $8 million, and the historical value of the remaining 25% of $87 million as of July 31, 2017, was recorded as an adjustment to NRG's noncontrolling interest. Since the transaction constituted a transfer of entities under common control, the accounting guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect from the beginning of the financial statement period or from the date the entities were under common control (if later than the beginning of the financial statement period).

March 2017 Drop Down Assets — On March 27, 2017, the Company acquired the following interests from NRG: (i) Agua Caliente Borrower 2 LLC, which owns a 16% interest (approximately 31% of NRG's 51% interest) in the Agua Caliente solar farm, one of the ROFO Assets, representing ownership of approximately 46 net MW of capacity and (ii) NRG's interests in the Utah Solar Portfolio. Agua Caliente is located in Yuma County, AZ and sells power subject to a 25-year PPA with Pacific Gas and Electric, with 22 years remaining on that contract. The seven utility-scale solar farms in the Utah Solar Portfolio are owned by the following entities: Four Brothers Capital, LLC, Iron Springs Capital, LLC, and Granite Mountain Capital, LLC. These utility-scale solar farms achieved commercial operations in 2016, sell power subject to 20-year PPAs with PacifiCorp, a subsidiary of Berkshire Hathaway and are part of a tax equity structure with Dominion Solar Projects III, Inc., or Dominion, through which the Company is entitled to receive 50% of cash to be distributed. The Company paid cash consideration of $128 million, which includes $3 million of final net working capital adjustment received by the Company from NRG. The acquisition of the March 2017 Drop Down Assets was funded with cash on hand. The Company recorded the acquired interests as equity method investments. The Company also assumed non-recourse debt of $41 million and $287 million on Agua Caliente Borrower 2 LLC and the Utah Solar Portfolio, respectively, as well as its pro-rata share of non-recourse project-level debt of Agua Caliente Solar LLC.

The assets and liabilities transferred to the Company relate to interests under common control by NRG and were recorded at historical cost in accordance with ASC 805-50, *Business Combination - Related Issues.* The difference between the cash paid and the historical value of the entities' equity of $8 million was recorded as an adjustment to contributed capital. Since the transaction constituted a transfer of entities under common control, the accounting guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect from the beginning of the financial statement period or from the date the entities were under common control (if later than the beginning of the financial statement period).

2016 Acquisitions

CVSR Drop Down — Prior to September 1, 2016, the Company had a 48.95% interest in CVSR, which was accounted for as an equity method investment. On September 1, 2016, the Company acquired from NRG the remaining 51.05% interest of CVSR Holdco LLC, which indirectly owns the CVSR solar facility, or the CVSR Drop Down, for total cash consideration of $78.5 million, plus an immaterial working capital adjustment. The acquisition was funded with cash on hand. The Company also assumed additional debt of $496 million, which represents 51.05% of the CVSR project level debt and 51.05% of the notes issued under the CVSR Holdco Financing Agreement, as of the closing date.

The assets and liabilities transferred to the Company related to interests under common control by NRG and were recorded at historical cost in accordance with ASC 805-50, *Business Combinations - Related Issues*. The difference between the cash paid and historical value of the CVSR Drop Down of $112 million, as well as $6 million of AOCL, was recorded as a distribution to NRG with the offset to contributed capital. Because the transaction constituted a transfer of net assets under common control, the guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect since the inception of common control. In connection with the retrospective adjustment of prior periods, the Company now consolidates CVSR and 100% of its debt, consisting of $771 million of project level debt and $200 million of notes issued under the CVSR Holdco Financing Agreement as of September 1, 2016. In addition, the Company has removed the equity method investment from all prior periods and adjusted its financial statements to reflect its results of operations, financial position and cash flows as if it had consolidated CVSR from the beginning of the financial statement period.

Note 4 — Property, Plant and Equipment

The Company's major classes of property, plant, and equipment were as follows:

	December 31, 2018	December 31, 2017	Depreciable Lives
	(In millions)		
Facilities and equipment	$ 6,638	$ 6,291	2 - 45 Years
Land and improvements	171	166	
Construction in progress [(a)]	26	238	
Total property, plant and equipment	6,835	6,695	
Accumulated depreciation	(1,590)	(1,285)	
Net property, plant and equipment	$ 5,245	$ 5,410	

[(a)] As of December 31, 2018 and 2017, construction in progress includes $6 million and $24 million of capital expenditures that relate to prepaid long-term service agreements in the Conventional segment, respectively.

The Company recorded long-lived asset impairments during the year ended December 31, 2017, as further described in Note 9, *Asset Impairments*.

Note 5 — Investments Accounted for by the Equity Method and Variable Interest Entities

Equity Method Investments

The following table summarizes the Company's equity method investments as of December 31, 2018:

Name	Economic Interest	Investment Balance
		(In millions)
Utah Solar Portfolio [(a)]	50%	$317
Desert Sunlight[(e)]	25%	264
GenConn[(b)]	50%	98
Agua Caliente Solar[(e)]	16%	90
Elkhorn Ridge[(c)]	66.7%	59
San Juan Mesa[(c)]	75%	57
DGPV Holdco 1 LLC [(d)]	95%	81
DGPV Holdco 2 LLC [(d)]	95%	63
DGPV Holdco 3 LLC [(d)]	99%	116
RPV Holdco 1 LLC[(d)]	95%	29
Avenal[(e)]	50%	(2)
		$1,172

[(a)] Economic interest based on cash to be distributed. Four Brothers Solar, LLC, Granite Mountain Holdings, LLC and Iron Springs Holdings, LLC are tax equity structures and VIEs. The related allocations are described below.

[(b)] GenConn is a variable interest entity.

[(c)] San Juan Mesa and Elkhorn Ridge are part of the Wind TE Holdco tax equity structure, as described below. San Juan Mesa and Elkhorn Ridge are owned 75% and 66.7%, respectively, by Wind TE Holdco. The Company owns 100% of the Class B interests in Wind TE Holdco.

[(d)] Economic interest based on cash to be distributed. DGPV Holdco 1 LLC, DGPV Holdco 2 LLC, DGPV Holdco 3 LLC and RPV Holdco 1 LLC are tax equity structures and VIEs. The related allocations are described below.

[(e)] Entities that have PPAs with PG&E. On January 29, 2019, PG&E filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. The Company has non-recourse project-level debt, and in some cases holding company debt, related to each of its subsidiaries that sell their output to PG&E under long-term PPAs. The PG&E bankruptcy filing is an event of default under the related financing agreements, and as a result, the respective lenders under these arrangements may accelerate the repayment of these debt balances. In addition, the event of default may have an impact on the Company's ability to distribute cash from the project-level cash accounts to the parent entities. The Company continues to operate the projects in the normal course of business and is currently in the process of negotiating forbearance agreements with the related lenders.

As of December 31, 2018 and 2017, the Company had $87 million and $57 million, respectively, of undistributed earnings from its equity method investments.

The Company acquired its interest in Desert Sunlight on June 30, 2015, for $285 million, which resulted in a difference between the purchase price and the basis of the acquired assets and liabilities of $171 million. The difference is attributable to the fair value of the property, plant and equipment and power purchase agreements. In addition, the difference between the basis of the acquired assets and liabilities and the purchase price for the Utah Solar Portfolio (Four Brothers Solar, LLC, Granite Mountain Holdings, LLC and Iron Springs Holdings, LLC) of $106 million is attributable to the fair value of the property, plant and equipment. The Company is amortizing the related basis differences to equity in earnings (losses) over the related useful life of the underlying assets acquired.

Non-recourse project-level debt of unconsolidated affiliates

The Company's pro-rata share of non-recourse debt held by unconsolidated affiliates was $878 million as of December 31, 2018. This included $432 million attributable to Desert Sunlight, Agua Caliente Solar, and Avenal, the unconsolidated affiliates that sell output to PG&E under long-term PPAs.

The following tables present summarized financial information for the Company's significant equity method investments:

	Year Ended December 31,		
	2018	2017	2016
Income Statement Data:	(In millions)		
GenConn			
Operating revenues	$ 65	$ 71	$ 72
Operating income	32	36	38
Net income	22	26	26
Desert Sunlight			
Operating revenues	208	207	211
Operating income	129	127	129
Net income	84	80	80
DGPV entities [(a)]			
Operating revenues	69	37	14
Operating income	23	7	2
Net income (loss)	11	(3)	—
RPV Holdco			
Operating revenues	14	16	13
Operating income	—	3	2
Net income	—	3	2
Other [(b)]			
Operating revenues	249	247	193
Operating income	103	89	71
Net income	$ 75	$ 56	$ 38

	As of December 31,	
	2018	2017
Balance Sheet Data:	(In millions)	
GenConn		
Current assets	$ 43	$ 38
Non-current assets	358	374
Current liabilities	22	18
Non-current liabilities	182	189
Desert Sunlight		
Current assets	133	133
Non-current assets	1,298	1,350
Current liabilities	58	64
Non-current liabilities	962	1,003
DGPV entities [(a)]		
Current assets	79	74
Non-current assets	784	671
Current liabilities	84	83
Non-current liabilities	314	216
Redeemable Noncontrolling Interest	—	44
RPV Holdco		
Current assets	2	3
Non-current assets	173	183
Current liabilities	1	—
Non-current liabilities	8	7
Redeemable Noncontrolling Interest	26	16
Other [(b)]		
Current assets	148	139
Non-current assets	2,511	2,621
Current liabilities	58	60
Non-current liabilities	$ 889	$ 932

[(a)] Includes DGPV Holdco 1, DGPV Holdco 2 and DGPV Holdco 3
[(b)] Includes Agua Caliente, Utah Solar Portfolio, Avenal, Elkhorn Ridge and San Juan Mesa

Variable Interest Entities, or VIEs

Entities that are Consolidated

The Company has a controlling financial interest in certain entities which have been identified as VIEs under ASC 810, *Consolidations,* or ASC 810. These arrangements are primarily related to tax equity arrangements entered into with third parties in order to monetize certain tax credits associated with wind facilities and are further described below.

Buckthorn Renewables, LLC **—** As described in Note 3, *Business Acquisitions*, on March 30, 2018, the Company acquired 100% of NRG's interest in a 154 MW construction-stage utility-scale solar generation project, Buckthorn Renewables, LLC, which owns 100% interest in Buckthorn Solar Portfolio, LLC, which in turn owns 100% of the Class B membership interests in Buckthorn Holdings, LLC. Buckthorn Holdings, LLC is a tax equity fund, which is a variable interest entity that is consolidated by Buckthorn Solar Portfolio, LLC. The Company is the primary beneficiary, through its position as managing member, and indirectly consolidates Buckthorn Holdings, LLC through Buckthorn Solar Portfolio, LLC. The Class A member is a tax equity investor who made its initial contribution of $19 million on March 30, 2018, which is reflected as noncontrolling interest on the Company's consolidated balance sheet. The project achieved substantial completion in May 2018, at which time the remaining tax equity contributions of $80 million were funded. The Company utilizes the HLBV method to determine the net income or loss allocated to the tax equity investor noncontrolling interest. The Company recorded $55 million of loss attributable to noncontrolling interest in Buckthorn Renewables, LLC during the period ended December 31, 2018.

Wind TE Holdco **—** As of December 31, 2018, Wind TE Holdco was a VIE and the Company, as the holder of Class B shares and the primary beneficiary through its position as managing member consolidated Wind TE Holdco. The Class A shares of Wind TE Holdco were owned by a tax equity investor, who received 99% of allocations of taxable income and other items. On January 2, the Company bought out 100% of the Class A membership interests from the TE Investor, for cash consideration of $19 million.

On August 30, 2018, Wind TE Holdco, entered into a partnership with Clearway Renew LLC, an indirect subsidiary of CEG, in order to facilitate the repowering of wind facilities of the two of its indirect subsidiaries, Elbow Creek Wind Project LLC and Wildorado Wind LLC. Wind TE Holdco contributed its interests in the two facilities and Clearway Renew LLC contributed a turbine supply agreement, including title to certain components that qualify for production tax credits. Clearway Renew LLC paid a total of $35 million to the service provider, which was recorded to other non current assets on the Company's consolidated balance sheets as of December 31, 2018. Wind TE Holdco is the managing member of Repowering Partnership LLC and consolidates the entity, which is a VIE. Clearway Renew LLC is entitled to allocations of 21% of income, which is reflected in Wind TE Holdco's noncontrolling interests.

Alta TE Holdco **—** On June 30, 2015, the Company sold an economic interest in Alta TE Holdco to a financial institution in order to monetize certain cash and tax attributes, primarily PTCs. The financial institution, or Alta Investor, receives 99% of allocations of taxable income and other items until the flip point, which occurs when the Alta Investor obtains a specified return on its initial investment, at which time the allocations to the Alta Investor change to 5%. The Company receives 94.34% until the flip point, at which time the allocations to the Company of CAFD will change to 97.12%, unless the flip point will not have occurred by a specified date, which would result in 100% of CAFD allocated to the Alta Investor until the flip point occurs. Alta TE Holdco is a VIE and the Company is the primary beneficiary through its position as managing member, and therefore consolidates Alta TE Holdco, with the Alta Investor's interest shown as noncontrolling interest. The Company utilizes the HLBV method to determine the net income or loss allocated to the noncontrolling interest.

Spring Canyon **—** The Company holds 90.1% of the Class B interests in Spring Canyon II, a 32 MW wind facility, and Spring Canyon III, a 28 MW wind facility, each located in Logan County, Colorado, and Invenergy Wind Global LLC owns 9.9% of the Class B interests. The projects are financed with a partnership flip tax-equity structure with a financial institution, who owns the Class A interests, to monetize certain cash and tax attributes, primarily PTCs. Until the flip point, the Class A member receives a variable percentage of cash distributions based on the projects' production level during the prior year. The Class A member received 34.81% of the cash distributions and the Company and Invenergy received 65.19% during the period ended December 31, 2017. After the flip point, cash distributions are allocated 5% to the Class A member and 95% to the Company and Invenergy. Spring Canyon is a VIE and the Company is the primary beneficiary through its position as managing member, and therefore consolidates Spring Canyon. The Class A member and Invenergy's interests are shown as noncontrolling interest. The Company utilizes the HLBV method to determine the net income or loss allocated to the Class A member. Net income or loss attributable to the Class B interests is allocated to Invenergy's noncontrolling interest based on its 9.9% ownership interest.

Summarized financial information for the Company's consolidated VIEs consisted of the following as of December 31, 2018:

(In millions)	Wind TE Holdco	Alta TE Holdco	Spring Canyon	Buckthorn Renewables, LLC
Other current and non-current assets	$ 215	$ 17	$ 2	$ 15
Property, plant and equipment	346	410	91	223
Intangible assets	2	249	—	—
Total assets	563	676	93	238
Current and non-current liabilities	210	9	4	
Total liabilities	210	9	4	135
Noncontrolling interest	45	63	49	43
Net assets less noncontrolling interests	$ 308	$ 604	$ 40	$ 60

Entities that are not Consolidated

The Company has interests in entities that are considered VIEs under ASC 810, *Consolidation*, but for which it is not considered the primary beneficiary. The Company accounts for its interests in these entities under the equity method of accounting.

Utah Solar Portfolio Assets — As described in Note 3, *Business Acquisitions*, as part of the March 2017 Drop Down Assets acquisition, the Company acquired from NRG 100% of the Class A equity interests in the Utah Solar Portfolio, comprised of Four Brothers Solar, LLC, Granite Mountain Holdings, LLC, and Iron Springs Holdings, LLC. The Class B interests of the Utah Solar Portfolio are owned by a tax equity investor, or TE Investor, who receives 99% of allocations of taxable income and other items until the flip point, which occurs on the last day of the calendar month on which the Class B member does not have an agreed upon adjusted capital account deficit, but not prior to the 10th day after the five year anniversary of the last project to achieve its placed in service date, at which time the allocations to the TE Investor change to 50%. The Company generally receives 50% of distributable cash throughout the term of the tax-equity arrangements. The three entities comprising the Utah Solar Portfolio are VIEs. As the Company is not the primary beneficiary, the Company uses the equity method of accounting to account for its interests in the Utah Solar Portfolio. The Company utilizes the HLBV method to determine its share of the income or losses in the investees.

DGPV Holdco 1 LLC — The Company and CEG are parties to the DGPV Holdco 1 LLC partnership, or DGPV Holdco 1, the purpose of which is to own or purchase solar power generation projects and other ancillary related assets from Clearway Energy Group LLC or its subsidiaries via intermediate funds. The Company owns approximately 52 MW of distributed solar capacity, based on cash to be distributed, with a weighted average contract life of 17 years. Under this partnership, the Company committed to fund up to $100 million of capital.

DGPV Holdco 2 LLC — The Company and CEG are parties to the DGPV Holdco 2 LLC partnership, or DGPV Holdco 2, the purpose of which is to own or hold solar power generation projects as well as other ancillary related assets from Clearway Energy Group LLC or its subsidiaries. The Company owns approximately 113 MW of distributed solar capacity, based on cash to be distributed, with a weighted average contract life of 20 years. Under this partnership, the Company committed to fund up to $60 million of capital.

DGPV Holdco 3 LLC — The Company and CEG are parties to the DGPV Holdco 3 LLC partnership, or DGPV Holdco 3, in which the Company would invest up to $50 million in an operating portfolio of distributed solar assets, primarily comprised of community solar projects, developed by CEG. The Company owns approximately 59 MW of distributed solar capacity, based on cash to be distributed, with a weighted average contract life of approximately 21 years as of December 31, 2018. In December 2018, the Company and CEG amended the DGPV Holdco 3 partnership agreement to increase the capital commitment of $50 million to $70 million. The Company had a $9 million payable due to DGPV Holdco 3 LLC as of December 31, 2018.

The Company's maximum exposure to loss is limited to its equity investment in DGPV Holdco 1, DGPV Holdco 2 and DGPV Holdco 3, which was $260 million on a combined basis.

RPV Holdco 1 LLC — The Company and CEG are parties to the RPV Holdco 1 LLC partnership, or RPV Holdco, the purpose of which is to hold operating portfolios of residential solar assets developed by NRG's residential solar business, including: (i) an existing, unlevered portfolio of over 2,200 leases across nine states representing approximately 14 MW, based on cash to be distributed, with a weighted average remaining lease term of approximately 14 years that was acquired outside of the partnership; and (ii) a tax equity-financed portfolio of approximately 5,400 leases representing approximately 30 MW, based on cash to be distributed, with a weighted average remaining lease term for the existing and new leases of approximately 17 years. The Company has fully funded the partnership as of December 31, 2017.

The Company's maximum exposure to loss is limited to its equity investment, which was $29 million as of December 31, 2018.

Note 6 — Fair Value of Financial Instruments

For cash and cash equivalents, restricted cash, accounts receivable — affiliate, accounts receivable, accounts payable, current portion of accounts payable — affiliate, accrued expenses and other liabilities, the carrying amount approximates fair value because of the short-term maturity of those instruments and are classified as Level 1 within the fair value hierarchy.

The estimated carrying amounts and fair values of the Company's recorded financial instruments not carried at fair market value are as follows:

	As of December 31, 2018		As of December 31, 2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(In millions)			
Assets:				
Notes receivable, including current portion	$ —	$ —	$ 13	$ 13
Liabilities:				
Long-term debt, including current portion — affiliate	259	257	618	618
Long-term debt, including current portion — external	$ 5,779	$ 5,681	$ 5,450	$ 5,466

Fair Value Accounting under ASC 820

ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three levels as follows:

- Level 1—quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access as of the measurement date.
- Level 2—inputs other than quoted prices included within Level 1 that are directly observable for the asset or liability or indirectly observable through corroboration with observable market data.
- Level 3—unobservable inputs for the asset or liability only used when there is little, if any, market activity for the asset or liability at the measurement date.

In accordance with ASC 820, the Company determines the level in the fair value hierarchy within which each fair value measurement in its entirety falls, based on the lowest level input that is significant to the fair value measurement.

The fair value of the Company's publicly-traded long-term debt is based on quoted market prices and is classified as Level 2 within the fair value hierarchy. The fair value of debt securities, non-publicly traded long-term debt, affiliate debt and certain notes receivable of the Company are based on expected future cash flows discounted at market interest rates, or current interest rates for similar instruments with equivalent credit quality and are classified as Level 3 within the fair value hierarchy. The following table presents the level within the fair value hierarchy for long-term debt, including current portion as of December 31, 2018 and 2017:

	As of December 31, 2018		As of December 31, 2017	
	Level 2	Level 3	Level 2	Level 3
	(In millions)			
Long-term debt, including current portion	$ 1,358	$ 4,580	$ 870	$ 5,214

Recurring Fair Value Measurements

The Company records its derivative assets and liabilities at fair market value on its consolidated balance sheet. The following table presents assets and liabilities measured and recorded at fair value on the Company's consolidated balance sheets on a recurring basis and their level within the fair value hierarchy:

	As of December 31, 2018	As of December 31, 2017
	Fair Value [(a)]	Fair Value [(a)]
(In millions)	**Level 2**	**Level 2**
Derivative assets:		
Commodity contracts [(b)]	$ —	$ 1
Interest rate contracts	11	1
Total assets	$ 11	$ 2
Derivative liabilities:		
Commodity contracts [(b)]	$ —	1
Interest rate contracts	21	48
Total liabilities	$ 21	$ 49

[(a)] There were no derivative assets or liabilities classified as Level 1 or 3 as of December 31, 2018 and 2017.

[(b)] The fair value of commodities was not material as of December 31, 2018.

Derivative Fair Value Measurements

The Company's contracts are non-exchange-traded and valued using prices provided by external sources. For the Company's energy markets, management receives quotes from multiple sources. To the extent that multiple quotes are received, the prices reflect the average of the bid-ask mid-point prices obtained from all sources believed to provide the most liquid market for the commodity.

The fair value of each contract is discounted using a risk free interest rate. In addition, a credit reserve is applied to reflect credit risk, which for interest rate swaps, is calculated based on credit default swaps utilizing the bilateral method. For commodities, to the extent that the Company's net exposure under a specific master agreement is an asset, the Company uses the counterparty's default swap rate. If the exposure under a specific master agreement is a liability, the Company uses its own default swap rate. For interest rate swaps and commodities, the credit reserve is added to the discounted fair value to reflect the exit price that a market participant would be willing to receive to assume the liabilities or that a market participant would be willing to pay for the assets. As of December 31, 2018, the credit reserve was not material. It is possible that future market prices could vary from those used in recording assets and liabilities and such variations could be material.

Concentration of Credit Risk

In addition to the credit risk discussion as disclosed in Note 2, *Summary of Significant Accounting Policies*, the following item is a discussion of the concentration of credit risk for the Company's financial instruments. Credit risk relates to the risk of loss resulting from non-performance or non-payment by counterparties pursuant to the terms of their contractual obligations. The Company monitors and manages credit risk through credit policies that include: (i) an established credit approval process; (ii) daily monitoring of counterparties' credit limits; (iii) the use of credit mitigation measures such as margin, collateral, prepayment arrangements, or volumetric limits; (iv) the use of payment netting agreements; and (v) the use of master netting agreements that allow for the netting of positive and negative exposures of various contracts associated with a single counterparty. Risks surrounding counterparty performance and credit could ultimately impact the amount and timing of expected cash flows. The Company seeks to mitigate counterparty risk by having a diversified portfolio of counterparties.

Counterparty credit exposure includes credit risk exposure under certain long-term agreements, including solar and other PPAs. As external sources or observable market quotes are not available to estimate such exposure, the Company estimates the exposure related to these contracts based on various techniques including but not limited to internal models based on a fundamental analysis of the market and extrapolation of observable market data with similar characteristics. Based on these valuation techniques, as of December 31, 2018, credit risk exposure to these counterparties attributable to the Company's ownership interests was approximately $2.3 billion for the next five years. The majority of these power contracts are with utilities with strong credit quality and public utility commission or other regulatory support. However, such regulated utility counterparties can be impacted by changes in government regulations, which the Company is unable to predict.

As previously described, on January 29, 2019, PG&E filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code. Certain subsidiaries of the Company sell the output of their facilities to PG&E under long-term PPAs, including interests in 6 solar facilities totaling 480 MW and Marsh Landing with a capacity of 720 MW. The Company consolidates three of the solar facilities and Marsh Landing and records its interest in the other solar facilities as equity method investments. The Company had $17 million in accounts receivable for its consolidated projects as of December 31, 2018. All of these amounts were collected in January 2019.

Note 7 — Accounting for Derivative Instruments and Hedging Activities

ASC 815 requires the Company to recognize all derivative instruments on the balance sheet as either assets or liabilities and to measure them at fair value each reporting period unless they qualify for a NPNS exception. The Company may elect to designate certain derivatives as cash flow hedges, if certain conditions are met, and defer the change in fair value of the derivatives to accumulated OCI/OCL, until the hedged transactions occur and are recognized in earnings. For derivatives that are not designated as cash flow hedges or do not qualify for hedge accounting treatment, the changes in the fair value will be immediately recognized in earnings. Certain derivative instruments may qualify for the NPNS exception and are therefore exempt from fair value accounting treatment. ASC 815 applies to the Company's energy related commodity contracts and interest rate swaps.

Energy-Related Commodities

To manage the commodity price risk associated with its competitive supply activities and the price risk associated with wholesale power sales, the Company may enter into derivative hedging instruments, namely, forward contracts that commit the Company to sell energy commodities or purchase fuels/electricity in the future. The objectives for entering into derivatives contracts designated as hedges include fixing the price for a portion of anticipated future electricity sales and fixing the price of a portion of anticipated fuel/electricity purchases for the operation of its subsidiaries. As of December 31, 2018, the Company had forward contracts for the purchase of fuel commodities relating to the forecasted usage of the Company's district energy centers extending through 2020 and electricity contracts to supply retail power to the Company's district energy centers extending through 2020. At December 31, 2018, these contracts were not designated as cash flow or fair value hedges.

Also, as of December 31, 2018, the Company had other energy-related contracts that did not meet the definition of a derivative instrument or qualified for the NPNS exception and were therefore exempt from fair value accounting treatment as follows:

- Power purchase agreements through 2043, and
- Natural gas transportation contracts through 2028.

Interest Rate Swaps

The Company is exposed to changes in interest rates through the issuance of variable rate debt. In order to manage interest rate risk, it enters into interest rate swap agreements.

As of December 31, 2018, the Company had interest rate derivative instruments on non-recourse debt extending through 2041, a portion of which are designated as cash flow hedges.

Volumetric Underlying Derivative Transactions

The following table summarizes the net notional volume buy/(sell) of the Company's open derivative transactions broken out by commodity as of December 31, 2018 and 2017:

		Total Volume	
		December 31, 2018	December 31, 2017
Commodity	Units	(In millions)	
Natural Gas	MMBtu	1	2
Interest	Dollars	$ 1,862	$ 2,050

Fair Value of Derivative Instruments

The following table summarizes the fair value within the derivative instrument valuation on the balance sheet:

	Fair Value			
	Derivative Assets [(a)]		Derivative Liabilities	
	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
	(In millions)			
Derivatives Designated as Cash Flow Hedges:				
Interest rate contracts current	$ 2	$ —	$ 1	$ 4
Interest rate contracts long-term	3	1	6	9
Total Derivatives Designated as Cash Flow Hedges	5	1	7	13
Derivatives Not Designated as Cash Flow Hedges:				
Interest rate contracts current	1	—	3	13
Interest rate contracts long-term	5	—	11	22
Commodity contracts current [(b)]	—	1	—	1
Total Derivatives Not Designated as Cash Flow Hedges	6	1	14	36
Total Derivatives	$ 11	$ 2	$ 21	$ 49

[(a)] Derivative Asset balances classified as current are included within the prepayments and other current assets line item of the Consolidated Balance Sheet.

[(b)] The fair value of commodities was not material as of December 31, 2018

The Company has elected to present derivative assets and liabilities on the balance sheet on a trade-by-trade basis and does not offset amounts at the counterparty master agreement level. As of December 31, 2018 and 2017, there was no outstanding collateral paid or received. As of December 31, 2018, the commodity balances were not material. The following tables summarize the offsetting of derivatives by counterparty master agreement level:

		Gross Amounts Not Offset in the Statement of Financial Position	
As of December 31, 2018	Gross Amounts of Recognized Assets/Liabilities	Derivative Instruments	Net Amount
Interest rate contracts:			
Derivative assets	$ 11	$ (1)	$ 10
Derivative liabilities	(21)	1	(20)
Total interest rate contracts	(10)	—	(10)
Total derivative instruments	$ (10)	$ —	$ (10)

		Gross Amounts Not Offset in the Statement of Financial Position	
As of December 31, 2017	Gross Amounts of Recognized Assets/Liabilities	Derivative Instruments	Net Amount
Commodity contracts:		(In millions)	
Derivative assets	$ 1	$ —	$ 1
Derivative liabilities	(1)	—	(1)
Total commodity contracts	—	—	—
Interest rate contracts:			
Derivative assets	1	(1)	—
Derivative liabilities	(48)	1	(47)
Total interest rate contracts	(47)	—	(47)
Total derivative instruments	$ (47)	$ —	$ (47)

Accumulated Other Comprehensive Loss

The following table summarizes the effects on the Company's accumulated OCL balance attributable to interest rate swaps designated as cash flow hedge derivatives:

	Year ended December 31,		
	2018	2017	2016
		(In millions)	
Accumulated OCL beginning balance	$ (69)	$ (86)	$ (99)
Reclassified from accumulated OCL to income due to realization of previously deferred amounts	15	17	17
Mark-to-market of cash flow hedge accounting contracts	9	—	(4)
Accumulated OCL ending balance	(45)	(69)	(86)
Accumulated OCL attributable to noncontrolling interests	(1)	(1)	(1)
Accumulated OCL attributable to Clearway Energy LLC	$ (44)	$ (68)	$ (85)
Losses expected to be realized from OCL during the next 12 months	$ 9		

Amounts reclassified from accumulated OCL into income are recorded to interest expense.

The Company's regression analysis for Marsh Landing, Walnut Creek and Avra Valley interest rate swaps, while positively correlated, no longer contain matching terms for cash flow hedge accounting. As a result, the Company voluntarily de-designated the Marsh Landing, Walnut Creek and Avra Valley cash flow hedges as of April 28, 2017, and will prospectively mark these derivatives to market through the income statement.

Impact of Derivative Instruments on the Statements of Income

The Company has interest rate derivative instruments that are not designated as cash flow hedges. The effect of interest rate hedges is recorded to interest expense. For the years ended December 31, 2018, 2017 and 2016 the impact to the consolidated statements of income was a gain of $15 million, gain of $6 million and a loss of $2 million, respectively.

A portion of the Company's derivative commodity contracts relates to its Thermal Business for the purchase of fuel/electricity commodities based on the forecasted usage of the thermal district energy centers. Realized gains and losses on these contracts are reflected in the costs that are permitted to be billed to customers through the related customer contracts or tariffs and, accordingly, no gains or losses are reflected in the consolidated statements of income for these contracts.

See Note 6, *Fair Value of Financial Instruments*, for a discussion regarding concentration of credit risk.

Note 8 — Intangible Assets

Intangible Assets — The Company's intangible assets as of December 31, 2018 and 2017 primarily reflect intangible assets established from its business acquisitions and are comprised of the following:

- *PPAs* — Established predominantly with the acquisitions of the Alta Wind Portfolio, Walnut Creek, Tapestry and Laredo Ridge, these represent the fair value of the PPAs acquired. These are amortized, generally on a straight-line basis, over the term of the PPA.
- *Leasehold Rights* — Established with the acquisition of the Alta Wind Portfolio, this represents the fair value of contractual rights to receive royalty payments equal to a percentage of PPA revenue from certain projects. These are amortized on a straight-line basis.
- *Customer relationships* — Established with the acquisition of Energy Center Phoenix and Energy Center Omaha, these intangibles represent the fair value at the acquisition date of the businesses' customer base. The customer relationships are amortized to depreciation and amortization expense based on the expected discounted future net cash flows by year.
- *Customer contracts* — Established with the acquisition of Energy Center Phoenix, these intangibles represent the fair value at the acquisition date of contracts that primarily provide chilled water, steam and electricity to its customers. These contracts are amortized to revenues based on expected volumes.
- *Emission Allowances* — These intangibles primarily consist of SO_2 and NO_x emission allowances established with the El Segundo and Walnut Creek acquisitions. These emission allowances are held-for-use and are amortized to cost of

operations, with NO_x allowances amortized on a straight-line basis and SO_2 allowances amortized based on units of production.

- Other — Consists of a) the acquisition date fair value of the contractual rights to a ground lease for South Trent and to utilize certain interconnection facilities for Blythe, as well as land rights acquired in connection with the acquisition of Elbow Creek, and b) development rights related to certain solar businesses acquired in 2010 and 2011.

The following tables summarize the components of intangible assets subject to amortization:

Year ended December 31, 2018	PPAs	Leasehold Rights	Customer Relationships	Customer Contracts	Emission Allowances	Other	Total
(In millions)							
December 31, 2018	$ 1,280	$ 86	$ 66	$ 15	$ 9	$ 8	$ 1,464
Less accumulated amortization	(269)	(18)	(7)	(9)	(2)	(3)	(308)
Net carrying amount	$ 1,011	$ 68	$ 59	$ 6	$ 7	$ 5	$ 1,156

Year ended December 31, 2017	PPAs	Leasehold Rights	Customer Relationships	Customer Contracts	Emission Allowances	Other	Total
(In millions)							
January 1, 2017	$ 1,286	$ 86	$ 66	$ 15	$ 9	$ 9	$ 1,471
Asset Impairments [(a)]	(6)	—	—	—	—	—	(6)
December 31, 2017	1,280	86	66	15	9	9	1,465
Less accumulated amortization	(205)	(13)	(5)	(8)	(3)	(3)	(237)
Net carrying amount	$ 1,075	$ 73	$ 61	$ 7	$ 6	$ 6	$ 1,228

[(a)] $6 million of asset impairments relate to one of the November 2017 Drop Down Assets that was recorded by NRG during the quarter ended September 30, 2017, as further described in Note 9, *Asset Impairments.*

The Company recorded amortization expense of $71 million during the years ended December 31, 2018, 2017 and 2016. Of these amounts, $70 million for the years ended December 31, 2018, 2017 and 2016 were recorded to contract amortization expense and reduced operating revenues in the consolidated statements of operations. The Company estimates the future amortization expense for its intangibles to be $71 million for the next five years through 2023.

Out-of-market contracts — The out-of-market contract liability represents the out-of-market value of the PPAs for the Blythe solar project and Spring Canyon wind projects and the out-of-market value of the land lease for Alta Wind XI, LLC, as of their respective acquisition dates. The Blythe solar project's liability of $7 million was recorded to other non-current liabilities on the consolidated balance sheet and is amortized to revenue in the consolidated statements of income on a units-of-production basis over the twenty-year term of the agreement. Spring Canyon's liability of $3 million was recorded to other non-current liabilities and is amortized to revenue on a straight-line basis over the twenty-five year term of the agreement. The Alta Wind XI, LLC's liability of $5 million was recorded to other non-current liabilities and is amortized as a reduction to cost of operations on a straight-line basis over the thirty-four year term of the land lease. At December 31, 2018, accumulated amortization of out-of-market contracts was $4 million and amortization expense was $1 million for each of the years ended December 31, 2018 and 2017.

Note 9 — *Asset Impairments*

During the fourth quarter of 2017, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, the Company determined that the cash flows for Elbow Creek, located in Texas, and the Forward project, located in Pennsylvania, were below the carrying value of the related assets, primarily driven by continued declining merchant power prices in post-contract periods, and that the assets were considered impaired. The fair value of the facilities was determined using an income approach by applying a discounted cash flow methodology to the long-term budgets for each respective plant. The income approach utilized estimates of discounted future cash flows, which were Level 3 fair value measurement and include key inputs, such as forecasted power prices, operations and maintenance expense, and discount rates. The Company measured the impairment loss as the difference between the carrying amount and the fair value of the assets and recorded impairment losses of $26 million and $5 million for Elbow Creek and Forward, respectively.

Additionally, during the quarter ended September 30, 2017, in connection with the preparation of the model for sale of the November 2017 Drop Down Assets, it was identified that undiscounted cash flows were lower than the book value of certain SPP funds and NRG recorded an impairment expense of $13 million, $8 million of which relates to property, plant, and equipment and $5 million to PPAs, as described in Note 8, *Intangible Assets*. In accordance with the guidance for transfer of assets under common

control, the impairment is reflected in the Company's consolidated statements of operations for the period ended December 31, 2018.

During the fourth quarter of 2016, as the Company updated its estimated cash flows in connection with the preparation and review of the Company's annual budget, the Company determined that the cash flows for the Elbow Creek and Goat Wind projects and the Forward project were below the carrying value of the related assets, primarily driven by declining merchant power prices in post-contract periods, and that the assets were considered impaired. These projects were acquired in connection with the acquisition of the November 2015 Drop Down Assets and were recorded as part of the Renewables segment of the Company. The projects were recorded at historical cost at acquisition date as they were related to interests under common control by NRG. The fair value of the facilities was determined using an income approach by applying a discounted cash flow methodology to the long-term budgets for each respective plant. The income approach utilized estimates of discounted future cash flows, which were Level 3 fair value measurement and include key inputs, such as forecasted power prices, operations and maintenance expense, and discount rates. The Company measured the impairment loss as the difference between the carrying amount and the fair value of the assets and recorded impairment losses of $117 million, $60 million and $6 million for Elbow Creek, Goat Wind, and Forward, respectively.

Other Impairments — During the fourth quarter of 2016, NRG recorded impairment losses of approximately $2 million related to the projects that were part of the November 2017 Drop Down Assets. Since the acquisition by the Company of the November 2017 Drop Down Assets related to transfer of assets under common control, these impairments were reflected in the Company's consolidated statements of operations for the periods ending December 31, 2016.

Note 10 — Long-term Debt

The Company's borrowings, including short term and long term portions consisted of the following:

	December 31, 2018	December 31, 2017	Interest rate % [(a)]	Letters of Credit Outstanding at December 31, 2018
	(In millions, except rates)			
Long-term debt - affiliate, due 2019	$ 215	$ 337	3.580	
Long-term debt - affiliate, due 2020	44	281	3.325	
2024 Senior Notes	500	500	5.375	
2025 Senior Notes	600	—	5.750	
2026 Senior Notes	350	350	5.000	
Clearway Energy LLC and Clearway Energy Operating LLC Revolving Credit Facility, due 2019 [(b)]	—	55	L+1.75	41
Project-level debt:				
Agua Caliente Borrower 2, due 2038 [(c)]	39	41	5.430	17
Alpine, due 2022 [(c)]	127	135	L+1.750	16
Alta Wind I - V lease financing arrangements, due 2034 and 2035	886	926	5.696 - 7.015	44
Buckthorn Solar, due 2025	132	169	L+1.750	26
CVSR, due 2037 [(c)]	720	746	2.339 - 3.775	—
CVSR Holdco Notes, due 2037 [(c)]	188	194	4.680	13
El Segundo Energy Center, due 2023	352	400	L+1.75 - L+2.375	138
Energy Center Minneapolis Series C, D, E, F, G, H Notes, due 2025-2037	328	208	various	—
Laredo Ridge, due 2028	89	95	L+1.875	10
Kansas South, due 2030 [(c)]	26	29	L+2.00	2
Marsh Landing, due 2023 [(c)]	263	318	L+2.125	60
South Trent Wind, due 2020	50	53	L+1.625	
Tapestry, due 2021	151	162	L+1.625	20
Utah Solar Portfolio, due 2022	267	278	various	13
Viento, due 2023	146	163	L+2.00	26
Walnut Creek, due 2023	222	267	L+1.75	74
Other	343	361	various	24
Subtotal project-level debt	4,329	4,545		
Total debt	6,038	6,068		
Less current maturities	(529)	(339)		
Less net debt issuance costs	(61)	(62)		
Total long-term debt	$ 5,448	$ 5,667		

(a) As of December 31, 2018, L+ equals 3 month LIBOR plus x%, except for Viento, due 2023 and Kansas South, due 2030, where L + equals 6 month LIBOR plus 2.00% and Utah Solar Portfolio, where L+equals 1 month LIBOR plus x%.

(b) Applicable rate is determined by the borrower leverage ratio, as defined in the credit agreement.

(c) On January 29, 2019, PG&E filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. The Company has non-recourse project-level debt, and in some cases holding company debt, related to each of its subsidiaries that sell their output to PG&E under long-term PPAs. The PG&E bankruptcy filing is an event of default under the related financing agreements, and as a result, the respective lenders under these arrangements may accelerate the repayment of these debt balances. In addition, the event of default may have an impact on the Company's ability to distribute cash from the project-level cash accounts to the parent entities. The Company continues to operate the projects in the normal course of business and is currently in the process of negotiating forbearance agreements with the related lenders.

The financing arrangements listed above contain certain covenants, including financial covenants, that the Company is required to be in compliance with during the term of the respective arrangement. As of December 31, 2018, the Company was in compliance with all of the required covenants.

Clearway Energy LLC and Clearway Energy Operating LLC Revolving Credit Facility

The Company borrowed $55 million from the revolving credit facility during the year ended December 31, 2017 for general corporate needs as well as to fund dividend payments.

On April 30, 2018, the Company closed on the refinancing of the revolving credit facility, which extended the maturity of the facility to April 28, 2023, and decreased the Company's overall cost of borrowing from L+2.50% to L+1.75%. The applicable rate is determined by the borrower leverage ratio, as defined in the credit agreement, and was L+1.75% as of December 31, 2018. The facility will continue to be used for general corporate purposes including financing of future acquisitions and posting letters of credit.

On October 9, 2018, the Company terminated certain letters of credit relating to certain project PPAs in exchange for a one-time payment, which reduced the outstanding letters of credit under the revolving credit facility. As of December 31, 2018, there were no outstanding borrowings under the revolving credit facility and the Company had $41 million of letters of credit outstanding.

Bridge Credit Agreement

On August 31, 2018, the Company entered into a senior unsecured 364-day bridge credit agreement, or the Bridge Credit Agreement, which provided total borrowings of up to a maximum amount of $1.5 billion at a rate per annum equal to LIBOR or a base rate plus an applicable margin equal to 3.00% in the case of LIBOR loans and 2.00% in the case of base rate loans.

In October 2018, the Company reduced the lenders' commitments under the bridge agreement from $1.5 billion to $867.5 million following the offering of the 2025 Senior Notes and the convertible notes tender offer results, each described below. On October 31, 2018, the Company terminated the Bridge Credit Agreement.

2025 Senior Notes

On October 1, 2018, Clearway Energy Operating LLC issued $600 million of senior unsecured notes, or the 2025 Senior Notes. The 2025 Senior Notes bear interest at 5.750% and mature on October 15, 2025. Interest on the 2025 Senior Notes is payable semi-annually on April 15 and October 15 of each year, and interest payments will commence on April 15, 2019. The 2025 Senior Notes are unsecured obligations of Clearway Energy Operating LLC and are guaranteed by Clearway Energy LLC and by certain of Clearway Energy Operating LLC's wholly owned current and future subsidiaries. The proceeds from the 2025 Senior Notes were partially used to repay the 2019 Convertible Notes.

2019 Convertible Notes Open Market Repurchases

In August 2018, the Company repurchased an aggregate principal amount of $16 million of the 2019 Convertible Notes in open market transactions. The repurchases were funded through a partial repayment of the intercompany note between Clearway Energy Operating LLC and Clearway Energy, Inc., which was reduced by $16 million.

In January 2019, the Company repurchased an additional aggregate principal amount of $50 million of the 2019 Convertible Notes in open market transactions. The repurchase was funded through a partial repayment of the intercompany note between Clearway Energy Operating LLC and Clearway Energy, Inc., which was reduced by $50 million.

2019 Convertible Notes and 2020 Convertible Notes Tender Offer

On September 10, 2018, pursuant to the 2019 Convertible Notes and the 2020 Convertible Notes indentures, Clearway Energy, Inc. delivered to the holders of the 2019 Convertible Notes and the 2020 Convertible Notes a fundamental change notice and offer to repurchase any and all of the 2019 Convertible Notes and 2020 Convertible Notes for cash at a price equal to 100% of the principal amount of the Convertible Notes plus any accrued and unpaid interest. The tender offer expired on October 9, 2018. An aggregate principal amount of $109 million of the 2019 Convertible Notes and $243 million of the 2020 Convertible Notes were tendered on or prior to the expiration date and accepted by the Company for purchase. After the expiration of the tender offer, $216 million aggregate principal amount of the intercompany note due 2019 remained outstanding and $44 million aggregate principal amount of the intercompany note due 2020 remained outstanding as of December 31, 2018. The 2019 Convertible Notes matured on February 1, 2019 and Clearway Energy, Inc. paid off the remaining balance of an aggregate principal amount of $170 million, which was funded through the payment of the remaining balance of the intercompany note due 2019 between Clearway Energy Operating LLC and Clearway Energy, Inc..

Project - level Debt

Energy Center Minneapolis Series E, F, G, H Notes

On June 19, 2018, Energy Center Minneapolis LLC, a subsidiary of the Company, entered into an amended and restated Thermal note purchase and private shelf agreement under which it authorized the issuance of the Series E Notes, Series F Notes, Series G Notes, and Series H Notes, as further described in the table below:

(In millions)		**Amount**	**Interest Rate**
Energy Center Minneapolis Series E Notes, due 2033	$	70	4.80%
Energy Center Minneapolis Series F Notes, due 2033		10	4.60%
Energy Center Minneapolis Series G Notes, due 2035		83	5.90%
Energy Center Minneapolis Series H Notes, due 2037		40	4.83%
Total proceeds	**$**	**203**	
Repayment of Energy Center Minneapolis Series C Notes, due 2025		(83)	5.95%
Net borrowings	**$**	**120**	

The proceeds from the sale of the Series E Notes and the Series F Notes were utilized to finance the acquisition of the UPMC Thermal Project as described in Note 3, *Business Acquisitions*. The Series G Notes were used to refinance the Series C Notes as noted above in the table. The Series H Notes were used to make a dividend to Clearway Energy Operating LLC.

The amended and restated Thermal note purchase and private shelf agreement also established a private shelf facility for the future issuance of notes in the amount of $40 million.

Buckthorn Solar Drop Down Asset Debt

As part of the Buckthorn Solar Drop Down Asset acquisition, as further described in Note 3, *Business Acquisitions*, the Company assumed non-recourse debt of $183 million relating to Buckthorn Solar Portfolio, LLC as of the date of the acquisition, March 30, 2018. The assumed debt consisted of a construction loan and an Investment Tax Credits, or ITC, bridge loan, both at an interest rate of LIBOR plus 1.75%. On May 31, 2018, $132 million of non-recourse debt was converted to a term loan with an expected maturity of May 2025, and the remainder of the non-recourse debt was repaid with the final contribution from the Class A member in the amount of $80 million upon the project reaching substantial completion in May 2018.

Buckthorn Solar entered into a series of fixed for floating interest rate swaps that would fix the interest rate for a minimum of 80% of the outstanding notional amount. All interest rate swap payments by Buckthorn Solar and its counterparties are made quarterly and LIBOR is determined in advance of each interest period.

November 2017 Drop Down Assets Debt

As part of the November 2017 Drop Down acquisition, the Company assumed non-recourse debt of $26 million relating to certain SPP funds. The assumed debt consisted of the following: a) a term loan under a credit agreement with a bank, with a maturity date of December 31, 2038 and interest rate of 4.69%. The credit agreement includes a letter of credit supporting debt service requirements and a letter of credit in support of the PPA; b) and financing obligation in connection with a sale-leaseback transaction with a bank for a period through March 31, 2032. The company will accrete the financing obligation over the lease term based on the lease's implicit interest rate of 8%.

Agua Caliente Borrower 2, due 2038

On February 17, 2017, Agua Caliente Borrower 1 LLC, an indirect subsidiary of NRG, and Agua Caliente Borrower 2 LLC, issued $130 million of senior secured notes under the Agua Caliente Borrower 1 LLC and Agua Caliente Borrower 2 LLC financing agreement, or Agua Caliente Holdco Financing Agreement, that bear interest at 5.43% and mature on December 31, 2038. As described in Note 3, *Business Acquisitions*, on March 27, 2017, the Company acquired Agua Caliente Borrower 2 LLC from NRG as part of the March 2017 Drop Down Assets acquisition and assumed NRG's portion of senior secured notes under the Agua Caliente Holdco Financing Agreement. Agua Caliente Borrower 2 LLC held $39 million of the Agua Caliente Holdco debt as of December 31, 2018.

The debt is joint and several with respect to Agua Caliente Borrower 1 LLC and Agua Caliente Borrower 2 LLC and is secured by the equity interests of each borrower in the Agua Caliente solar facility.

Utah Solar Portfolio, due 2022

As part of the March 2017 Drop Down Assets acquisition, the Company assumed non-recourse debt of $287 million relating to the Utah Solar Portfolio at an interest rate of LIBOR plus 2.625%. The debt matures on December 16, 2022. The $287 million consisted of $222 million outstanding at the time of NRG's acquisition of the Utah Solar Portfolio on November 2, 2016, and additional borrowings of $65 million, net of debt issuance costs, incurred during 2016. The Company held $267 million of the Utah Solar Portfolio debt as of December 31, 2018.

Interest Rate Swaps — Project Financings

Many of the Company's project subsidiaries entered into interest rate swaps, intended to hedge the risks associated with interest rates on non-recourse project level debt. These swaps amortize in proportion to their respective loans and are floating for fixed where the project subsidiary pays its counterparty the equivalent of a fixed interest payment on a predetermined notional value and will receive quarterly the equivalent of a floating interest payment based on the same notional value. All interest rate swap payments by the project subsidiary and its counterparty are made quarterly and the LIBOR is determined in advance of each interest period.

The following table summarizes the swaps, some of which are forward starting as indicated, related to the Company's project level debt as of December 31, 2018:

	% of Principal	Fixed Interest Rate	Floating Interest Rate	Notional Amount at December 31, 2018 (In millions)	Effective Date	Maturity Date
Alpine	85%	various	3-Month LIBOR	$ 108	various	various
Avra Valley	87%	2.333%	3-Month LIBOR	44	November 30, 2012	November 30, 2030
AWAM	100%	2.47%	3-Month LIBOR	16	May 22, 2013	May 15, 2031
Blythe	75%	3.563%	3-Month LIBOR	12	June 25, 2010	June 25, 2028
Borrego	75%	1.125%	3-Month LIBOR	3	April 3, 2013	June 30, 2020
Buckthorn Solar	83%	various	3-Month LIBOR	109	February 28, 2018	December 31, 2041
El Segundo	85%	various	3-Month LIBOR	299	various	various
Kansas South	75%	2.368%	6-Month LIBOR	20	June 28, 2013	December 31, 2030
Laredo Ridge	80%	2.31%	3-Month LIBOR	71	March 31, 2011	March 31, 2026
Marsh Landing	94%	3.244%	3-Month LIBOR	246	June 28, 2013	June 30, 2023
Roadrunner	75%	4.313%	3-Month LIBOR	24	September 30, 2011	December 31, 2029
South Trent	75%	3.265%	3-Month LIBOR	37	June 15, 2010	June 14, 2020
South Trent	75%	4.95%	3-Month LIBOR	21	June 30, 2020	June 14, 2028
Tapestry	90%	2.21%	3-Month LIBOR	136	December 30, 2011	December 21, 2021
Tapestry	50%	3.57%	3-Month LIBOR	60	December 21, 2021	December 21, 2029
Utah Solar Portfolio	80%	various	1-Month LIBOR	214	various	September 30, 2036
Viento Funding II	91%	various	6-Month LIBOR	134	various	various
Viento Funding II	90%	4.985%	6-Month LIBOR	65	July 11, 2023	June 30, 2028
Walnut Creek Energy	90%	various	3-Month LIBOR	200	June 28, 2013	May 31, 2023
WCEP Holdings	100%	4.003%	3-Month LIBOR	43	June 28, 2013	May 31, 2023
Total				$ 1,862		

Annual Maturities

Annual payments based on the maturities of the Company's debt, for the years ending after December 31, 2018, are as follows:

	(In millions)
2019	$ 529
2020	405
2021	447
2022	646
2023	389
Thereafter	3,622
Total	$ 6,038

Note 11 — *Members' Equity*

The following table lists the distributions paid on the Company's Class A, Class B, Class C and Class D units during the year ended December 31, 2018:

	Fourth Quarter 2018	Third Quarter 2018	Second Quarter 2018	First Quarter 2018
Distributions per Class A and Class B units	$ 0.331	$ 0.320	$ 0.309	$ 0.298
Distributions per Class C and Class D units	$ 0.331	$ 0.320	$ 0.309	$ 0.298

On February 12, 2019, the Company declared a quarterly distribution on its Class A, Class B, Class C and Class D units of $0.20 per share payable on March 15, 2019.

During 2018, 2017, and 2016, the Company acquired the Drop Down Assets from NRG, as described in Note 3, *Business Acquisitions*. The difference between the cash paid and historical value of the acquired Drop Down Assets was recorded as a distribution to/contribution from NRG with the offset to contributed capital. Prior to the date of acquisition, certain of the projects made distributions to NRG and NRG made contributions into certain projects. These amounts are reflected within the Company's statement of members' equity as changes in the contributed capital balance.

Note 12 — Segment Reporting

The Company's segment structure reflects how management currently operates and allocates resources. The Company's businesses are segregated based on conventional power generation, renewable businesses which consist of solar and wind, and the thermal and chilled water business. The Corporate segment reflects the Company's corporate costs and includes eliminating entries. The Company's chief operating decision maker, its Chief Executive Officer, evaluates the performance of its segments based on operational measures including adjusted earnings before interest, taxes, depreciation and amortization, or Adjusted EBITDA, and CAFD, as well as economic gross margin and net income (loss).

The Company generated more than 10% of its revenues from the following customers for the years ended December 31, 2018, 2017 and 2016:

	2018		2017		2016	
Customer	**Conventional (%)**	**Renewables (%)**	**Conventional (%)**	**Renewables (%)**	**Conventional (%)**	**Renewables (%)**
SCE	20%	20%	21%	20%	21%	21%
PG&E	12%	11%	12%	11%	12%	11%

	Year ended December 31, 2018				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Operating revenues [(a)]	$ 337	$ 526	$ 193	$ (3)	$ 1,053
Cost of operations [(a)]	62	146	127	(3)	332
Depreciation and amortization	101	207	23	—	331
General and administrative	—	—	1	19	20
Acquisition-related transaction and integration costs	—	—	—	20	20
Development costs	—	—	2	1	3
Operating income (loss)	174	173	40	(40)	347
Equity in earnings of unconsolidated affiliates	11	63	—	—	74
Other income, net	1	4	1	2	8
Interest expense	(51)	(154)	(12)	(77)	(294)
Net Income (Loss)	135	86	29	(115)	135
Less: Net loss attributable to noncontrolling interests	—	(104)	—	(1)	(105)
Net Income (Loss) Attributable to Clearway Energy LLC	$ 135	$ 190	$ 29	$ (114)	$ 240
Balance Sheet					
Equity investment in affiliates	$ 98	$ 1,074	$ —	$ —	$ 1,172
Capital expenditures [(a)]	14	26	28	—	68
Total Assets	$ 1,788	$ 5,836	$ 516	$ 308	$ 8,448

[(a)] Inter-segment revenues and cost of operations include operations and maintenance fee revenue and related costs recorded in the Renewables segment.
[(b)] Includes accruals.

	Year ended December 31, 2017				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Operating revenues	$ 336	$ 501	$ 172	$ —	$ 1,009
Cost of operations	77	133	116	—	326
Depreciation and amortization	103	210	21	—	334
Impairment losses	—	44	—	—	44
General and administrative	—	—	—	19	19
Acquisition-related transaction and integration costs	—	—	—	3	3
Operating income (loss)	156	114	35	(22)	283
Equity in earnings of unconsolidated affiliates	12	59	—	—	71
Other income, net	1	2	—	1	4
Loss on debt extinguishment	—	(3)	—	—	(3)
Interest expense	(49)	(164)	(10)	(71)	(294)
Net Income (Loss)	120	8	25	(92)	61
Less: Net loss attributable to noncontrolling interests	—	(75)	—	—	(75)
Net Income (Loss) Attributable to Clearway Energy LLC	$ 120	$ 83	$ 25	$ (92)	$ 136
Balance Sheet					
Equity investments in affiliates	$ 102	$ 1,076	$ —	$ —	$ 1,178
Capital expenditures [(a)]	15	181	16	—	212
Total Assets	$ 1,897	$ 6,017	$ 422	$ 24	$ 8,360

(a) Includes accruals.

	Year ended December 31, 2016				
(In millions)	**Conventional Generation**	**Renewables**	**Thermal**	**Corporate**	**Total**
Operating revenues	$ 333	$ 532	$ 170	$ —	$ 1,035
Cost of operations	66	128	114	—	308
Depreciation and amortization	80	203	20	—	303
Impairment losses	—	185	—	—	185
General and administrative	—	—	—	14	14
Acquisition-related transaction and integration costs	—	—	—	1	1
Operating income (loss)	187	16	36	(15)	224
Equity in earnings of unconsolidated affiliates	13	47	—	—	60
Other income, net	1	2	—	—	3
Interest expense	(48)	(151)	(7)	(66)	(272)
Net Income (Loss)	153	(86)	29	(81)	15
Less: Net loss attributable to noncontrolling interests	—	(111)	—	—	(111)
Net Income (Loss) Attributable to Clearway Energy LLC	$ 153	$ 25	$ 29	$ (81)	$ 126

Note 13 — Related Party Transactions

Related Party Transactions with CEG entities

Administrative Services Agreements by and between the Company and Clearway Renewable Operation & Maintenance LLC (formerly NRG Renew Operation & Maintenance LLC)

Various wholly-owned subsidiaries of the Company in the Renewables segment are party to administrative services agreements with Clearway Renewable Operation & Maintenance LLC (formerly NRG Renew Operation & Maintenance LLC), or RENOM, a wholly-owned subsidiary of CEG, which provides Operation and Maintenance, O&M, services to these subsidiaries. The Company incurred total expenses for these services of $30 million, $23 million and $13 million for the years ended December 31, 2018, 2017 and 2016, respectively. There was a balance of $6 million and $5 million due to RENOM as of December 31, 2018 and 2017, respectively.

CEG Master Services Agreements

Following the consummation of the GIP Transaction, Clearway Energy, Inc. along with Clearway Energy LLC and Clearway Energy Operating LLC entered into Master Services Agreements with CEG, pursuant to which CEG and certain of its affiliates or third party service providers began providing certain services to the Company, including operational and administrative services, which include human resources, information systems, external affairs, accounting, procurement and risk management services, and the Company began providing certain services to CEG, including accounting, internal audit, tax and treasury services, in exchange for the payment of fees in respect of such services.

Amounts due to CEG or its subsidiaries are recorded as accounts payable - affiliate and amounts due to the Company from CEG and subsidiaries are recorded as accounts receivable - affiliate on the Company's consolidated balance sheet.

Related Party Transactions with NRG entities prior to the GIP Transaction

The following transactions relate to the period prior to sale of NRG's interest in CEG to GIP on August 31, 2018 and therefore were considered to be related party transactions for all the periods prior to August 31, 2018:

Power Purchase Agreements (PPAs) between the Company and NRG Power Marketing

Elbow Creek and Dover are parties to PPAs with NRG Power Marketing and generate revenue under the PPAs, which are recorded to operating revenues in the Company's consolidated statements of operations. For the eight months ended August 31, 2018, Elbow Creek and Dover, collectively, generated revenues of $8 million. For the years ended December 31, 2017 and 2016, Elbow Creek and Dover, collectively, generated revenues of $12 million and $13 million, respectively.

Energy Marketing Services Agreement by and between Thermal entities and NRG Power Marketing

Energy Center Dover LLC, Energy Center Minneapolis, Energy Center Phoenix LLC, and Energy Center Paxton LLC, or Thermal entities, are parties to Energy Marketing Services Agreements with NRG Power Marketing, a wholly-owned subsidiary of NRG. Under the agreements, NRG Power Marketing procures fuel and fuel transportation for the operation of Thermal entities. For the eight months ended August 31, 2018, the Thermal entities purchased $7 million of natural gas from NRG Power Marketing. The Thermal entities purchased a total of $9 million of natural gas during each of the years ended December 31, 2017 and 2016.

Operation and Maintenance (O&M) Services Agreements by and between Company's subsidiaries and NRG

Certain of the Company's subsidiaries are party to O&M Services Agreements with NRG, pursuant to which NRG subsidiaries provide necessary and appropriate services to operate and maintain the subsidiaries' plant operations, businesses and thermal facilities. NRG is reimbursed for the provided services, as well as for all reasonable and related expenses and expenditures, and payments to third parties for services and materials rendered to or on behalf of the parties to the agreements. NRG is not entitled to any management fee or mark-up under the agreements. The fees incurred under these agreements was $27 million for the eight months ended August 31, 2018. The fees incurred under this agreement were $39 million and $36 million for the years ended December 31, 2017 and 2016, respectively.

O&M Services Agreements by and between GenConn and NRG

GenConn incurs fees under two O&M agreements with wholly-owned subsidiaries of NRG. For the eight months ended August 31, 2018, the aggregate fees incurred under the agreements were $4 million. The fees incurred under the agreements were $5 million during each of the years ended December 31, 2017 and 2016.

Administrative Services Agreement by and between Marsh Landing and NRG West Coast LLC

Marsh Landing is a party to an administrative services agreement with NRG West Coast LLC, a wholly owned subsidiary of NRG. The Company reimbursed costs under this agreement of $11 million for the eight months ended August 31, 2018. The Company reimbursed costs under this agreement of approximately $15 million and $14 million for the years ended December 31, 2017 and 2016, respectively.

Project Administrative Services Agreement by and between ESEC and NRG West Coast LLC

During 2018, ESEC, NRG West Coast LLC and NRG Power Marketing LLC, or PML, entered into confirmation agreements under the Project Administration Services Agreement between ESEC and NRG West Coast LLC, whereby PML purchased California Carbon Allowances which ESEC could subsequently purchase for the purposes of ESEC's compliance with the California Cap-and-Trade Program. ESEC reimbursed costs under these agreements of $11 million for the eight months ended August 31, 2018.

Management Services Agreement by and between the Company and NRG

Prior to the GIP Transaction, NRG provided the Company with various operational, management, and administrative services, which include human resources, accounting, tax, legal, information systems, treasury, and risk management, as set forth in the Management Services Agreement. Costs incurred under this agreement were $7 million for the eight months ended August 31, 2018. Costs incurred under this agreement were approximately $10 million during each of the years ended December 31, 2017 and 2016, respectively. The costs incurred under the Management Services Agreement included certain direct expenses incurred by NRG on behalf of the Company in addition to the base management fee.

On August 31, 2018, in connection with the consummation of the GIP Transaction, the Company entered into a Termination Agreement with Clearway Energy LLC, Clearway Energy Operating LLC and NRG terminating the Management Services Agreement, dated as of July 22, 2013, by and among the Company, Clearway Energy LLC, Clearway Energy Operating LLC and NRG.

Subsequent to the GIP Transaction, the Company entered into a Transition Services Agreement with NRG, or the NRG TSA, pursuant to which NRG or certain of its affiliates began providing transitional services to the Company following the consummation of the GIP Transaction, in exchange for the payment of a fee in respect of such services. Expenses related to the NRG TSA are recorded in acquisition-related transaction and integration costs in the consolidated statements of operations.

EPC Agreement by and between ECP and NRG

NRG Business Services LLC, a subsidiary of NRG, and Energy Center Pittsburgh LLC, or ECP, a wholly owned subsidiary of the Company, entered into an EPC agreement for the construction of a 73 MWt district energy system for ECP to provide 150 kpph of steam, 6,750 tons of chilled water and 7.5 MW of emergency backup power service to UPMC Mercy. The initial term of the energy services agreement with UPMC Mercy will be for a period of twenty years from the service commencement date. On June 19, 2018, as discussed in Note 3, *Business Acquisitions*, ECP purchased the UPMC Thermal Project assets from NRG Business Services LLC for cash consideration of $84 million, subject to working capital adjustments. The Company paid an additional $3 million to NRG upon final completion of the project in January 2019 pursuant to the EPC agreement.

Note 14 — Commitments and Contingencies

Operating Lease Commitments

The Company leases certain facilities and equipment under operating leases, some of which include escalation clauses, expiring on various dates through 2048. The effects of these scheduled rent increases, leasehold incentives, and rent concessions are recognized on a straight-line basis over the lease term unless another systematic and rational allocation basis is more representative of the time pattern in which the leased property is physically employed. Lease expense under operating leases was $18 million, $17 million and $15 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Future minimum lease commitments under operating leases for the years ending after December 31, 2018 are as follows:

	(In millions)
2019	$ 13
2020	13
2021	13
2022	13
2023	12
Thereafter	207
Total	$ 271

Gas and Transportation Commitments

The Company has entered into contractual arrangements to procure power, fuel and associated transportation services. For the years ended December 31, 2018, 2017 and 2016, the Company purchased $39 million, $34 million and $32 million, respectively, under such arrangements. As further described in Note 13 *Related Party Transactions,* these purchases include intercompany transactions through August 31, 2018 between certain Thermal entities and NRG Power Marketing under the Energy Marketing Services Agreements in the amount of $7 million for the eight months ended August 31, 2018 and $9 million during each of the years ended December 31, 2017 and 2016.

As of December 31, 2018, the Company's commitments under such outstanding agreements are estimated as follows:

Period	(In millions)
2019	$ 11
2020	3
2021	3
2022	3
2023	3
Thereafter	13
Total	$ 36

Contingencies

The Company's material legal proceedings are described below. The Company believes that it has valid defenses to these legal proceedings and intends to defend them vigorously. The Company records reserves for estimated losses from contingencies when information available indicates that a loss is probable and the amount of the loss, or range of loss, can be reasonably estimated. As applicable, the Company has established an adequate reserve for the matters discussed below. In addition, legal costs are expensed as incurred. Management assesses such matters based on current information and makes a judgment concerning its potential outcome, considering the nature of the claim, the amount and nature of damages sought and the probability of success. The Company is unable to predict the outcome of the legal proceedings below or reasonably estimate the scope or amount of any associated costs and potential liabilities. As additional information becomes available, management adjusts its assessment and estimates of such contingencies accordingly. Because litigation is subject to inherent uncertainties and unfavorable rulings or developments, it is possible that the ultimate resolution of the Company's liabilities and contingencies could be at amounts that are different from its currently recorded reserves and that such difference could be material.

In addition to the legal proceedings noted below, the Company and its subsidiaries are party to other litigation or legal proceedings arising in the ordinary course of business. In management's opinion, the disposition of these ordinary course matters will not materially adversely affect the Company's consolidated financial position, results of operations, or cash flows.

Nebraska Public Power District Litigation

On January 11, 2019, Nebraska Public Power District, or NPPD, sent written notice to certain of the Company’s subsidiaries which own the Laredo Ridge and Elkhorn Ridge wind projects alleging an event of default under each of the power purchase agreements between NPPD and the projects. NPPD alleges that Company moved forward with certain transactions without obtaining the consent of NPPD. NPPD threatened to terminate the applicable power purchase agreements by February 11, 2019 if the alleged default was not cured. The Company filed a motion for a temporary restraining order and preliminary injunction in the U.S. District Court for the District of Nebraska relating to the Laredo Ridge project, and a similar motion in the District Court

of Knox County, Nebraska for the Elkhorn Ridge project, to enjoin NPPD from taking any actions related to the power purchase agreements. On February 19, 2019, the U.S. District Court in the Laredo Ridge matter approved a stipulation between the parties to provide for an injunction preventing NPPD from terminating the PPA pending disposition of the litigation. On February 26, 2019, the Knox County District Court approved a similar stipulation relating to the Elkhorn Ridge project. The Company believes the allegations of NPPD are meritless and the Company is vigorously defending its rights under the power purchase agreements.

Note 15 — Unaudited Quarterly Data

Below is summarized unaudited quarterly financial data for the periods ending December 31, 2018 and 2017. The Company's historical financial results for the four quarters of 2017 were recast to include the results of the Buckthorn Solar Drop Down Asset acquisition, which took place on March 30, 2018, and is further described in Note 3, *Business Acquisitions*. The Company originally recast its historical quarterly financial statements to include the result of the Buckthorn Drop Down Asset acquisition in its Form 10-Q for the period ended September 30, 2018. Additionally, the quarterly results for the period ended December 31, 2017, as presented below in the table, were recast to include the quarterly operating results of the Buckthorn Solar Drop Down Asset for the period ending December 31, 2017.

	Quarter Ended			
	December 31,	September 30,	June 30,	March 31,
	2018			
	(In millions)			
Operating Revenues	$ 229	$ 292	$ 307	$ 225
Operating Income	54	100	144	49
Net (Loss) Income	(37)	64	106	2

	Quarter Ended			
	December 31,	September 30,	June 30,	March 31,
	2017			
	(In millions)			
Operating Revenues	$ 231	$ 269	$ 288	$ 221
Operating Income	20	84	125	54
Net (Loss) Income	(37) [a]	42	56	—

[a] The Company reported Net loss of $38 million for the quarter ending December 31, 2017, as previously reported in the Note 17 , *Unaudited Quarterly Financial Data* of its Form 2017 10-K. The recast results in the table above include $1 million of Net Income attributable to the Buckthorn Solar Drop Down Asset acquisition.

Note 16 — Condensed Consolidating Financial Information

As of December 31, 2018, Clearway Energy Operating LLC had outstanding $500 million of the 2024 Senior Notes, $600 million of the 2025 Senior Notes and $350 million of the 2026 Senior Notes, collectively Senior Notes, as described in Note 10, *Long-term Debt*. These Senior Notes are guaranteed by the Company, as well as certain of the Company's subsidiaries, or guarantor subsidiaries. These guarantees are both joint and several. The non-guarantor subsidiaries include the rest of the Company's subsidiaries, including the ones that are subject to project financing.

Unless otherwise noted below, each of the following guarantor subsidiaries fully and unconditionally guaranteed the Senior Notes as of December 31, 2018:

Alta Wind 1-5 Holding Company, LLC
Alta Wind Company, LLC
Central CA Fuel Cell 1, LLC
Clearway Energy LLC
Clearway Energy Operating LLC
Clearway Solar Star LLC
DGPV Holding LLC
ECP Uptown Campus Holdings LLC
Energy Center Caguas Holdings LLC
Fuel Cell Holdings LLC
Portfolio Solar I, LLC
RPV Holding LLC
Solar Flagstaff One LLC
Solar Iguana LLC
Solar Las Vegas MB 1 LLC
Solar Tabernacle LLC
South Trent Holdings LLC
SPP Asset Holdings, LLC
SPP Fund II Holdings, LLC
SPP Fund II, LLC
SPP Fund II-B, LLC
SPP Fund III, LLC
Thermal Canada Infrastructure Holdings LLC
Thermal Infrastructure Development Holdings LLC
UB Fuel Cell, LLC

Clearway Energy Operating LLC conducts much of its business through and derives much of its income from its subsidiaries. Therefore, its ability to make required payments with respect to its indebtedness and other obligations depends on the financial results and condition of its subsidiaries and Clearway Energy Operating LLC's ability to receive funds from its subsidiaries. There are no restrictions on the ability of any of the guarantor subsidiaries to transfer funds to Clearway Energy Operating LLC. However, there may be restrictions for certain non-guarantor subsidiaries.

On January 29, 2019, PG&E filed for bankruptcy under Chapter 11 of the U.S. Bankruptcy Code. PG&E is one of the Company's largest customers, representing approximately 23% of the Company's consolidated operating revenues during the year ended December 31, 2018 and 16% of total accounts receivable as of December 31, 2018, of which all has been collected as of January 31, 2019. The PG&E bankruptcy filing is an event of default under the related financing agreements which caused uncertainty around the timing of when certain project-level cash distributions will be available to the Company. As of December 31, 2018, all project level cash balances for these subsidiaries were classified as restricted cash. None of the subsidiaries affected by the PG&E bankruptcy are guarantors of the Senior Notes as of December 31, 2018.

The following condensed consolidating financial information presents the financial information of Clearway Energy LLC, Clearway Energy Operating LLC, the issuer of the Senior Notes, the guarantor subsidiaries and the non-guarantor subsidiaries in accordance with Rule 3-10 under the SEC Regulation S-X. The financial information may not necessarily be indicative of results of operations or financial position had the guarantor subsidiaries or non-guarantor subsidiaries operated as independent entities.

In this presentation, Clearway Energy LLC consists of parent company operations. Guarantor subsidiaries and non-guarantor subsidiaries of Clearway Energy LLC are reported on an equity basis. For companies acquired, the fair values of the assets and liabilities acquired have been presented on a push-down accounting basis.

As described in Note 3, *Business Acquisitions*, the Company completed the acquisition of the Buckthorn Solar Drop Down Asset on March 30, 2018. The guidance requires retrospective combination of the entities for all periods presented as if the combination has been in effect since the inception of common control. Accordingly, the Company prepared its condensed consolidating financial statements to reflect the transfers as if they had taken place from the beginning of the financial statements period.

The Company also completed the UPMC Thermal Project Asset Acquisition on June 19, 2018, which was an asset acquisition. The assets transferred to the Company relate to interests under common control by NRG and were recorded at book value in accordance with ASC 805-50, *Business Combinations - Related Issues*. The difference between the purchase price and book value of the assets was recorded as a distribution to NRG and decreased the balance of contributed capital. The acquisition was determined to be an asset acquisition and not a business combination, therefore no recast of the historical financial information was deemed necessary.

During the first six months of 2018, the Company added certain subsidiaries to the list of guarantors under the Senior Notes indentures, and as a result, the Company recast the historical financial statements to allow for the comparability between the reported periods as required by GAAP.

In addition, the condensed parent company financial statements are provided in accordance with Rule 12-04, Schedule I of Regulation S-X, as the restricted net assets of Clearway Energy LLC’s subsidiaries exceed 25 percent of the consolidated net assets of Clearway Energy LLC. These statements should be read in conjunction with the consolidated statements and notes thereto of Clearway Energy LLC. For a discussion of Clearway Energy LLC's long-term debt, see Note 10, *Long-term Debt*. For a discussion of Clearway Energy LLC's commitments and contingencies, see Note 14, *Commitments and Contingencies*.

For a discussion of Clearway Energy LLC's distributions to Clearway Energy, Inc., NRG Energy, (and subsequent to August 31, 2018, CEG), see Note 11, *Members' Equity*.

In addition, Clearway Energy LLC’s cash and cash equivalents represents corporate cash held in overnight investment accounts and is used for general corporate purposes for Clearway LLC and Clearway Operating LLC.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS

For the Year Ended December 31, 2018

	Clearway Energy LLC [a]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Senior Notes Issuer)	Eliminations[b]	Consolidated
				(In millions)		
Operating Revenues						
Total operating revenues	$ —	$ 11	$ 1,042	$ 3	$ (3)	$ 1,053
Operating Costs and Expenses				—		
Cost of operations	—	3	329	3	(3)	332
Depreciation and amortization	—	6	325	—	—	331
General and administrative	—	—	—	20	—	20
Acquisition-related transaction and integration costs	—	—	—	20	—	20
Development costs	—	—	—	3	—	3
Total operating costs and expenses	—	9	654	46	(3)	706
Operating Income (Loss)	—	2	388	(43)	—	347
Other Income (Expense)						
Equity in earnings of consolidated affiliates	237	—	—	224	(461)	—
Equity in earnings of unconsolidated affiliates	—	43	3	28	—	74
Other income, net	3	—	5	—	—	8
Interest expense	—	—	(217)	(77)	—	(294)
Total other income (expense), net	240	43	(209)	175	(461)	(212)
Net Income	240	45	179	132	(461)	135
Less: Net loss attributable to noncontrolling interests	—	—	(69)	(105)	69	(105)
Net Income Attributable to Clearway Energy LLC	$ 240	$ 45	$ 248	$ 237	$ (530)	$ 240

[a] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[b] All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF COMPREHENSIVE INCOME

For the Year Ended December 31, 2018

	Clearway Energy LLC [(a)]	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Note Issuer)	Eliminations[(b)]	Consolidated
				(In millions)		
Net Income	$ 240	$ 45	$ 179	$ 132	$ (461)	$ 135
Other Comprehensive Income						
Unrealized gain on derivatives	24	1	20	24	(45)	24
Other comprehensive income	24	1	20	24	(45)	24
Comprehensive Income	264	46	199	156	(506)	159
Less: Comprehensive loss attributable to noncontrolling interests	—	—	(69)	(105)	69	(105)
Comprehensive Income Attributable to Clearway Energy LLC	$ 264	$ 46	$ 268	$ 261	$ (575)	$ 264

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
(b) All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING BALANCE SHEETS

December 31, 2018

ASSETS	Clearway Energy LLC [a]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Senior Notes Issuer)	Eliminations[b]	Consolidated
			(In millions)			
Current Assets						
Cash and cash equivalents	$ 298	$ —	$ 109	$ —	$ —	$ 407
Restricted cash	—	—	176	—	—	176
Accounts receivable — trade	—	1	103	—	—	104
Accounts receivable — affiliates	8	—	—	11	(14)	5
Inventory	—	—	40			40
Prepayments and other current assets			27	2	—	29
Total current assets	306	1	455	13	(14)	761
Property, plant and equipment, net	—	65	5,180	—	—	5,245
Other Assets						
Investment in consolidated subsidiaries	1,676	417	—	3,250	(5,343)	—
Equity investments in affiliates	—	289	522	361	—	1,172
Intangible assets, net	—	11	1,145	—	—	1,156
Derivative instruments	—	—	8	—	—	8
Other non-current assets	—	—	103	3	—	106
Total other assets	1,676	717	1,778	3,614	(5,343)	2,442
Total Assets	$ 1,982	$ 783	$ 7,413	$ 3,627	$ (5,357)	$ 8,448

[a] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[b] All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING BALANCE SHEETS
(Continued)

December 31, 2018

LIABILITIES AND MEMBERS' EQUITY	Clearway Energy LLC [(a)]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Senior Notes Issuer)	Eliminations[(b)]	Consolidated
			(In millions)			
Current Liabilities						
Current portion of long-term debt — external	$ —	$ —	$ 314	$ —	$ —	$ 314
Current portion of long-term debt — affiliate	—	—	—	215	—	215
Accounts payable — trade	—	1	36	8	—	45
Accounts payable — affiliate	—	—	23	11	(14)	20
Derivative instruments	—	—	4	—	—	4
Accrued interest expense	—	—	17	27	—	44
Accrued expenses and other current liabilities	—	—	53	4	—	57
Total current liabilities	—	1	447	265	(14)	699
Other Liabilities						
Long-term debt — external	—	—	3,970	1,434	—	5,404
Long-term debt — affiliate	—	—	—	44	—	44
Derivative instruments	—	—	17	—	—	17
Other non-current liabilities	—	2	92	8	—	102
Total non-current liabilities	—	2	4,079	1,486	—	5,567
Total Liabilities	—	3	4,526	1,751	(14)	6,266
Commitments and Contingencies						
Members' Equity						
Contributed capital	1,940	804	2,708	1,930	(5,442)	1,940
Retained earnings (accumulated deficit)	86	(24)	108	(210)	126	86
Accumulated other comprehensive loss	(44)	—	(51)	(44)	95	(44)
Noncontrolling interest	—	—	122	200	(122)	200
Total Members' Equity	1,982	780	2,887	1,876	(5,343)	2,182
Total Liabilities and Members' Equity	$ 1,982	$ 783	$ 7,413	$ 3,627	$ (5,357)	$ 8,448

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
(b) All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS

For the Year Ended December 31, 2018

	Clearway Energy LLC [(a)]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Note Issuer)	Consolidated
			(In millions)		
Net Cash Provided by (Used in) Operating Activities	$ —	$ 23	$ 550	$ (81)	$ 492
Cash Flows from Investing Activities					
Changes in investments in consolidated subsidiaries	361	—	—	(361)	—
Acquisition of business, net of cash acquired	—	—	—	(11)	(11)
Acquisition of Drop Down Assets, net of cash acquired	—	—	—	(126)	(126)
Capital expenditures	—	—	(83)	—	(83)
Cash receipts from notes receivable	—	—	13	—	13
Return of investment from unconsolidated affiliates	—	11	20	14	45
Investments in unconsolidated affiliates	—	(34)	—	—	(34)
Other	—	—	11	—	11
Net Cash Provided by (Used in) Investing Activities	361	(23)	(39)	(484)	(185)
Cash Flows from Financing Activities					
Net contributions from noncontrolling interests	—	—	97	9	106
Transfer of funds under intercompany cash management arrangement	—	—	4	(4)	—
Proceeds from the issuance of Class C units	153	—	—	—	153
(Payments of) proceeds from distributions	(238)	—	(400)	385	(253)
Proceeds from the revolving credit facility	—	—	—	35	35
Payments for the revolving credit facility	—	—	—	(90)	(90)
Payments of debt issuance costs	—	—	(3)	(11)	(14)
Proceeds from issuance of long-term debt	—	—	227	600	827
Payments for long-term debt — external	—	—	(443)	—	(443)
Payments for long-term debt — affiliate	—	—	—	(359)	(359)
Net Cash (Used in) Provided by Financing Activities	(85)	—	(518)	565	(38)
Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash	276	—	(7)	—	269
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	22	—	292	—	314
Cash, Cash Equivalents and Restricted Cash at End of Period	$ 298	$ —	$ 285	$ —	$ 583

[(a)] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS

For the Year Ended December 31, 2017

	Clearway Energy LLC [a] [c]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries [c]	Clearway Energy Operating LLC (Note Issuer) [c]	Eliminations[b] [c]	Consolidated
			(In millions)			
Operating Revenues						
Total operating revenues	$ —	$ 10	$ 999	$ 1	$ (1)	$ 1,009
Operating Costs and Expenses						
Cost of operations	—	2	324	1	(1)	326
Depreciation and amortization	—	6	328	—	—	334
Impairment losses	—	12	32	—	—	44
General and administrative	—	—	—	19	—	19
Acquisition-related transaction and integration costs	—	—	—	3	—	3
Total operating costs and expenses	—	20	684	23	(1)	726
Operating Income (Loss)	—	(10)	315	(22)	—	283
Other Income (Expense)						
Equity in earnings (losses) of consolidated affiliates	135	(16)	—	125	(244)	—
Equity in earnings of unconsolidated affiliates	—	22	21	28	—	71
Loss on debt extinguishment	—	(3)	—	—	—	(3)
Other income, net	1	—	3	—	—	4
Interest expense	—	1	(224)	(71)	—	(294)
Total other income (expense)	136	4	(200)	82	(244)	(222)
Net Income (Loss)	136	(6)	115	60	(244)	61
Less: Net loss attributable to noncontrolling interests	—	—	(5)	(75)	5	(75)
Net Income (Loss) Attributable to Clearway Energy LLC	$ 136	$ (6)	$ 120	$ 135	$ (249)	$ 136

[a] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[b] All significant intercompany transactions have been eliminated in consolidation.
[c] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF COMPREHENSIVE INCOME

For the Year Ended December 31, 2017

	Clearway Energy LLC (a) (c)	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries (c)	Clearway Energy Operating LLC (Note Issuer) (c)	Eliminations(b) (c)	Consolidated
	(In millions)					
Net Income (Loss)	$ 136	$ (6)	$ 115	$ 60	$ (244)	$ 61
Other Comprehensive Income						
Unrealized gain on derivatives	17	1	16	17	(34)	17
Other comprehensive income	17	1	16	17	(34)	17
Comprehensive Income (Loss)	153	(5)	131	77	(278)	78
Less: Comprehensive loss attributable to noncontrolling interests	—	—	(5)	(75)	5	(75)
Comprehensive Income (Loss) Attributable to Clearway Energy LLC	$ 153	$ (5)	$ 136	$ 152	$ (283)	$ 153

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
(b) All significant intercompany transactions have been eliminated in consolidation.
(c) Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING BALANCE SHEETS

December 31, 2017

ASSETS	Clearway Energy LLC [a] [c]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries [c]	Clearway Energy Operating LLC (Note Issuer) [c]	Eliminations[b][c]	Consolidated
	(In millions)					
Current Assets						
Cash and cash equivalents	$ 22	$ —	$ 124	$ —	$ —	$ 146
Restricted cash	—	—	168	—	—	168
Accounts receivable — trade	—	1	93	1	—	95
Accounts receivable — affiliates	1	—	—	—	—	1
Inventory	—	—	39	—	—	39
Notes receivable — current	—	—	13	—	—	13
Prepayments and other current assets	—	—	18	1	—	19
Total current assets	23	1	455	2	—	481
Property, plant and equipment, net	—	59	5,351	—	—	5,410
Other Assets						
Investment in consolidated subsidiaries	1,844	460	—	3,198	(5,502)	—
Equity investments in affiliates	—	233	577	368	—	1,178
Intangible assets, net	—	12	1,216	—	—	1,228
Derivative instruments	—	—	1	—	—	1
Other non-current assets	—	—	62	—	—	62
Total other assets	1,844	705	1,856	3,566	(5,502)	2,469
Total Assets	$ 1,867	$ 765	$ 7,662	$ 3,568	$ (5,502)	$ 8,360

[a] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[b] All significant intercompany transactions have been eliminated in consolidation.
[c] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING BALANCE SHEETS
(Continued)

December 31, 2017

	Clearway Energy LLC (a) (c)	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries (c)	Clearway Energy Operating LLC (Note Issuer) (c)	Eliminations (b) (c)	Consolidated
LIABILITIES AND MEMBERS' EQUITY				(In millions)		
Current Liabilities						
Current portion of long-term debt — external	$ —	$ —	$ 339	$ —	$ —	$ 339
Accounts payable — trade	—	—	46	—	—	46
Accounts payable — affiliate	—	—	33	16	—	49
Derivative instruments	—	—	18	—	—	18
Accrued interest expense	—	—	16	22	—	38
Accrued expenses and other current liabilities			46	3		49
Total current liabilities	—	—	498	41	—	539
Other Liabilities						
Long-term debt — external	—	—	4,153	896	—	5,049
Long-term debt — affiliate	—	—	—	618	—	618
Derivative instruments	—	—	31	—	—	31
Other non-current liabilities	—	2	85	7	—	94
Total non-current liabilities	—	2	4,269	1,521	—	5,792
Total Liabilities	—	2	4,767	1,562	—	6,331
Commitments and Contingencies						
Members' Equity						
Contributed capital	1,919	822	2,934	2,119	(5,875)	1,919
Retained earnings (accumulated deficit)	16	(58)	(25)	(207)	290	16
Accumulated other comprehensive loss	(68)	(1)	(71)	(68)	140	(68)
Noncontrolling interest	—	—	57	162	(57)	162
Total Members' Equity	1,867	763	2,895	2,006	(5,502)	2,029
Total Liabilities and Members' Equity	$ 1,867	$ 765	$ 7,662	$ 3,568	$ (5,502)	$ 8,360

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
(b) All significant intercompany transactions have been eliminated in consolidation.
(c) Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS

For the Year Ended December 31, 2017

	Clearway Energy LLC [(a)]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries [(b)]	Clearway Energy Operating LLC (Note Issuer)	Consolidated
Net Cash Provided by (Used in) Operating Activities	$ —	$ 51	$ 537	$ (71)	$ 517
Cash Flows from Investing Activities					
Changes in investments in consolidated subsidiaries	(15)	—	—	15	—
Acquisition of Drop Down Assets	—	—	—	(250)	(250)
Capital expenditures	—	—	(190)	—	(190)
Cash receipts from notes receivable	—	—	17	—	17
Return of investment from unconsolidated affiliates	—	10	14	23	47
Investments in unconsolidated affiliates	—	(64)	(7)	(2)	(73)
Other	—	—	7	—	7
Net Cash Used in Investing Activities	(15)	(54)	(159)	(214)	(442)
Cash Flows from Financing Activities					
Transfer of funds under intercompany cash management arrangement	(5)	—	(1)	6	—
Net contributions from noncontrolling interests	—	—	2	11	13
Net distributions and return of capital to NRG prior to the acquisition of Drop Down Assets	—	30	(46)	(7)	(23)
Proceeds from the issuance of Class C units	33	—	—	—	33
(Payments of) proceeds from distributions	(202)	—	(220)	220	(202)
Proceeds from the revolving credit facility	—	—	—	55	55
Proceeds from the issuance of long-term debt - external	—	—	210	—	210
Payments of debt issuance costs	—	—	(12)	—	(12)
Payments for long-term debt — external	—	(36)	(296)	—	(332)
Net Cash Provided by (Used in) Financing Activities	(174)	(6)	(363)	285	(258)
Net (Decrease) Increase in Cash, Cash Equivalents and Restricted Cash	(189)	(9)	15	—	(183)
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	211	9	277	—	497
Cash, Cash Equivalents and Restricted Cash at End of Period	$ 22	$ —	$ 292	$ —	$ 314

[(a)] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[(b)] Retrospectively adjusted as discussed in Note 1, *Nature of Business*.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS

For the Year Ended December 31, 2016

	Clearway Energy LLC (a)	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Note Issuer)	Eliminations(b)	Consolidated
			(In millions)			
Operating Revenues						
Total operating revenues	$ —	$ 10	$ 1,025	$ 1	$ (1)	$ 1,035
Operating Costs and Expenses						
Cost of operations	—	3	305	1	(1)	308
Depreciation and amortization	—	5	298	—	—	303
Impairment losses	—	2	183	—	—	185
General and administrative	2	—	—	12	—	14
Acquisition-related transaction and integration costs	—	—	—	1	—	1
Total operating costs and expenses	2	10	786	14	(1)	811
Operating (Loss) Income	(2)	—	239	(13)	—	224
Other Income (Expense)						
Equity in earnings of consolidated affiliates	128	10	—	66	(204)	—
Equity in (losses) earnings of unconsolidated affiliates	—	9	21	30	—	60
Other income, net	—	—	3	—	—	3
Interest expense	—	(2)	(204)	(66)	—	(272)
Total other income (expense), net	128	17	(180)	30	(204)	(209)
Net Income	126	17	59	17	(204)	15
Less: Net loss attributable to noncontrolling interests	—	—	(1)	(111)	1	(111)
Net Income Attributable to Clearway Energy LLC	$ 126	$ 17	$ 60	$ 128	$ (205)	$ 126

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
(b) All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF COMPREHENSIVE INCOME

For the Year Ended December 31, 2016

	Clearway Energy LLC [(a)]	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Senior Notes Issuer)	Eliminations [(b)]	Consolidated
			(In millions)			
Net Income	$ 126	$ 17	$ 59	$ 17	$ (204)	$ 15
Other Comprehensive Income						
Unrealized gain on derivatives	13	1	10	13	(24)	13
Other comprehensive income	13	1	10	13	(24)	13
Comprehensive Income	139	18	69	30	(228)	28
Less: Comprehensive loss attributable to noncontrolling interests	—	—	(1)	(111)	1	(111)
Comprehensive Income Attributable to Clearway Energy LLC	$ 139	$ 18	$ 70	$ 141	$ (229)	$ 139

[(a)] Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.
[(b)] All significant intercompany transactions have been eliminated in consolidation.

CLEARWAY ENERGY LLC AND SUBSIDIARIES

CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS

For the Year Ended December 31, 2016

	Clearway Energy LLC (a)	Other Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Clearway Energy Operating LLC (Note Issuer)	Consolidated
			(In millions)		
Net Cash Provided by (Used in) Operating Activities	$ —	$ 67	$ 549	$ (39)	$ 577
Cash Flows from Investing Activities					
Changes in investments in consolidated subsidiaries	325	—	(21)	(304)	—
Acquisition of Drop Down Assets, net of cash acquired	—	—	—	(77)	(77)
Capital expenditures	—	—	(20)	—	(20)
Cash receipts from notes receivable	—	—	17	—	17
Return of investment from unconsolidated affiliates	—	16	—	12	28
Investments in unconsolidated affiliates	—	(80)	(3)	—	(83)
Other	—	—	4	—	4
Net Cash (Used in) Provided by Investing Activities	325	(64)	(23)	(369)	(131)
Cash Flows from Financing Activities					
Transfer of funds under intercompany cash management arrangement	44	2	—	(46)	—
Net contributions from noncontrolling interests	—	—	—	5	5
Net distributions and return of capital to NRG prior to the acquisition of Drop Down Assets	—	(3)	(171)	(10)	(184)
(Payments of) proceeds from distributions	(173)	—	(420)	420	(173)
Proceeds from the revolving credit facility	—	—	—	60	60
Payments for the revolving credit facility	—	—	—	(366)	(366)
Proceeds from issuance of long-term debt — external	—	—	390	350	740
Payments for long-term debt — external	—	(3)	(266)	—	(269)
Payment of debt issuance costs	—	—	(10)	(5)	(15)
Net Cash (Used in) Provided by Financing Activities	(129)	(4)	(477)	408	(202)
Net Increase (Decrease) in Cash, Cash Equivalents and Restricted Cash	196	(1)	49	—	244
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	15	10	228	—	253
Cash, Cash Equivalents and Restricted Cash at End of Period	$ 211	$ 9	$ 277	$ —	$ 497

(a) Shown separately from the other guarantors in lieu of preparing Schedule I pursuant to the requirements of Rule 5-04(c) of Regulation S-X.

EXHIBIT INDEX

Number	Description	Method of Filing
2.1	Purchase and Sale Agreement, dated as of May 5, 2014, by and between NRG Gas Development Company, LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on May 9, 2014.
2.2	Purchase and Sale Agreement, dated as of May 5, 2014, by and between NRG Solar PV LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.2 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on May 9, 2014.
2.3	Purchase and Sale Agreement, dated as of May 5, 2014, by and between NRG Solar PV LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.3 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on May 9, 2014.
2.4	Purchase and Sale Agreement, dated June 3, 2014, by and among NRG Yield, Inc., NRG Yield Operating LLC, Terra-Gen Finance Company, LLC, NTD AWAM Holdings, LLC, CHIPS Alta Wind X Holding Company, LLC and CHIPS Alta Wind XI Holding Company, LLC.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on June 9, 2014.
2.5	Purchase and Sale Agreement, dated as of November 4, 2014, by and between NRG Wind LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on November 7, 2014.
2.6	Purchase and Sale Agreement, dated as of November 4, 2014, by and between NRG Arroyo Nogales LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.2 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on November 7, 2014.
2.7*^	Purchase and Sale Agreement, dated as of June 17, 2015, by and between EFS Desert Sun, LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.1 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on August 4, 2015.
2.8	Purchase and Sale Agreement, dated as of September 17, 2015, by and between NRG Energy Gas & Wind Holdings, Inc. and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 21, 2015.
2.9	Purchase and Sale Agreement, dated as of August 8, 2016, between NRG Solar CVSR Holdings 2 LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.1 to Clearway Energy, Inc.'s Current Report on Form 8-K, filed on August 9, 2016.
2.10*	Purchase and Sale Agreement, dated as of February 6, 2018, by and between NRG Gas Development Company, LLC and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 2.10 to Clearway Energy, Inc.'s Annual Report on Form 10-K, filed on March 1, 2018.
3.1	Certificate of Formation of NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 3.01(a) to the Company's Registration Statement on Form S-4 filed on April 13, 2015.
3.2	Certificate of Amendment of Certificate of Formation of NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 3.01(b) to the Company's Registration Statement on Form S-4 filed on April 13, 2015.
3.3	Third Amended and Restated Limited Liability Company Agreement of Clearway Energy Operating LLC.	Filed herewith.
3.4	Certificate of Formation of NRG Yield LLC.	Incorporated herein by reference to Exhibit 3.03(a) to the Company's Registration Statement on Form S-4 filed on April 13, 2015.
3.5	Certificate of Amendment of Certificate of Formation of NRG Yield LLC.	Incorporated herein by reference to Exhibit 3.03(b) to the Company's Registration Statement on Form S-4 filed on April 13, 2015.
3.6	Fourth Amended and Restated Limited Liability Company Agreement of NRG Yield LLC, dated as of August 31, 2018, by and between NRG Yield, Inc. and Zephyr Renewables LLC.	Incorporated herein by reference to Exhibit 10.6 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
4.1	Indenture, dated August 5, 2014, among NRG Yield Operating LLC, the guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on August 5, 2014.

4.2	Form of 5.375% Senior Note due 2024.	Incorporated herein by reference to Exhibit 4.2 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on August 5, 2014.
4.3	Registration Rights Agreement, dated October 1, 2018, among Clearway Energy Operating LLC, the guarantors named therein and RBC Capital Markets, LLC, as representative of the initial purchasers.	Incorporated herein by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed on October 2, 2018.
4.4	Supplemental Indenture, dated as of November 7, 2014, among NRG Yield Operating LLC, the guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on November 13, 2014.
4.5	Supplemental Indenture, dated as of February 25, 2015, among NRG Yield Operating LLC, the guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on February 27, 2015.
4.6	Third Supplemental Indenture, dated as of April 10, 2015, among NRG Yield Operating LLC, NRG Yield LLC, the other guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.07 to the Company's Registration Statement on Form S-4 filed on April 13, 2015.
4.7	Fourth Supplemental Indenture, dated as of May 8, 2015, among NRG Yield Operating LLC, the guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on May 8, 2015.
4.8	Indenture, dated June 29, 2015, among NRG Yield, Inc., NRG Yield Operating LLC and NRG Yield LLC, as Guarantors, and Wilmington Trust, National Association, as Trustee.	Incorporated herein by reference to Exhibit 4.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on June 29, 2015.
4.9	Form of 3.25% Convertible Senior Note due 2020.	Incorporated herein by reference to Exhibit 4.2 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on June 29, 2015.
4.10	Indenture, dated August 18, 2016, among NRG Yield Operating LLC, the guarantors named therein and Law Debenture Trust Company of New York.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on August 18, 2016.
4.11	Form of 5.000% Senior Note due 2026.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on August 18, 2016.
4.12	Registration Rights Agreement, dated August 18, 2016, among NRG Yield Operating LLC, the guarantors named therein and J.P. Morgan Securities LLC, as representative of the initial purchasers.	Incorporated herein by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K, filed on August 18, 2016.
4.13	Fifth Supplemental Indenture, dated as of January 29, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on January 31, 2018.
4.14	Sixth Supplemental Indenture, dated as of June 12, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 12, 2018.
4.15	Supplemental Indenture, dated as of January 29, 2018, among NRG Yield Operating LLC, the guarantors named therein and the Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on January 31, 2018.
4.16	Second Supplemental Indenture, dated as of June 12, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on June 12, 2018.
4.17	Seventh Supplemental Indenture, dated as of July 17, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.3 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2018.
4.18	Third Supplemental Indenture, dated as of July 17, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.4 to the Company's Quarterly Report on Form 10-Q filed on August 2, 2018.

4.19	Eighth Supplemental Indenture, dated as of August 30, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on September 6, 2018.
4.20	Fourth Supplemental Indenture, dated as of August 30, 2018, among NRG Yield Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on September 6, 2018.
4.21	Indenture, dated October 1, 2018, among Clearway Energy Operating LLC, the guarantors named therein and Delaware Trust Company, as trustee.	Incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on October 2, 2018.
4.22	Form of 5.750% Senior Notes due 2025	Incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on October 2, 2018.
4.23	Ninth Supplemental Indenture, dated as of October 25, 2018, among Clearway Energy Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on October 31, 2018.
4.24	Fifth Supplemental Indenture, dated as of October 25, 2018, among Clearway Energy Operating LLC, the guarantors named therein and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York).	Incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on October 31, 2018.
4.25	First Supplemental Indenture, dated as of October 25, 2018, among Clearway Energy Operating LLC, the guarantors named therein and Delaware Trust Company.	Incorporated herein by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed on October 31, 2018.
10.1	Third Amended and Restated Right of First Offer Agreement, dated as of August 31, 2018, by and between NRG Yield, Inc. and NRG Energy, Inc.	Incorporated herein by reference to Exhibit 10.5 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
10.2.1	Right of First Offer Agreement, dated as of August 31, 2018, by and among NRG Yield, Inc., Zephyr Renewables LLC and solely for purposes of Section 2.4, GIP III Zephyr Acquisition Partners, L.P.	Incorporated herein by reference to Exhibit 10.3 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
10.2.2	First Amendment to Right of First Offer Agreement, dated February 14, 2019, by and between Clearway Energy Group LLC and Clearway Energy, Inc.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on February 14, 2019.
10.3	Master Services Agreement, dated as of August 31, 2018, by and among NRG Yield, Inc., NRG Yield LLC, NRG Yield Operating LLC and Zephyr Renewables LLC.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
10.4	Master Services Agreement, dated as of August 31, 2018, by and among Zephyr Renewables LLC, NRG Yield, Inc., NRG Yield LLC, and NRG Yield Operating LLC.	Incorporated herein by reference to Exhibit 10.2 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
10.5	Termination Agreement, dated as of August 31, 2018, by and among NRG Yield, Inc., NRG Yield LLC, NRG Yield Operating LLC and NRG Energy, Inc.	Incorporated herein by reference to Exhibit 10.9 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on September 5, 2018.
10.6.1	Amended and Restated Credit Agreement, dated April 25, 2014, by and among NRG Yield Operating LLC, NRG Yield LLC, Royal Bank of Canada, as Administrative Agent, the lenders party thereto, Royal Bank of Canada, Goldman Sachs Bank USA and Bank of America, N.A., as L/C Issuers and RBC Capital Markets as Sole Left Lead Arranger and Sole Left Lead Book Runner.	Incorporated by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Current Report on Form 8-K filed on April 28, 2014.
10.6.2	First Amendment to Amended & Restated Credit Agreement, dated June 26, 2015, by and among NRG Yield Operating LLC, NRG Yield LLC, Royal Bank of Canada and the	Incorporated herein by reference to Exhibit 10.9 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on August 4,

	Lenders party thereto.	2015.
10.6.3	Second Amendment to Amended & Restated Credit Agreement, dated February 6, 2018, by and among NRG Yield Operating LLC, NRG Yield LLC, the guarantors party thereto, Royal Bank of Canada, as Administrative Agent, and the lenders party thereto.	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 12, 2018.

10.6.4	Third Amendment to Amended and Restated Credit Agreement and Administrative Agent Resignation and Appointment Agreement, dated as of April 30, 2018, by and among NRG Yield Operating LLC, NRG Yield LLC, the guarantors party thereto, Royal Bank of Canada, as Resigning Administrative Agent, JPMorgan Chase Bank, N.A., as Successor Administrative Agent, and the lenders party thereto.	Incorporated herein by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on May 3, 2018.
10.6.5	Fourth Amendment to Amended and Restated Credit Agreement, dated as of November 30, 2018, by and among Clearway Energy Operating LLC, Clearway Energy LLC, the guarantors party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the lenders party thereto.	Incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 6, 2018.
10.7^	Amended and Restated Limited Liability Company Agreement of NRG RPV Holdco 1 LLC, dated as of April 9, 2015.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on August 4, 2015.
10.8^	Amended and Restated Limited Liability Company Agreement of NRG DGPV Holdco 1 LLC, dated as of May 8, 2015.	Incorporated herein by reference to Exhibit 10.2 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on August 4, 2015.
10.9^	Amendment No. 1 to Amended and Restated Limited Liability Company Agreement of NRG RPV Holdco 1 LLC, dated as of March 1, 2016, by and between NRG Yield RPV Holding LLC and NRG Residential Solar Solutions LLC.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on May 5, 2016.
10.10^	Amendment No. 2 to Amended and Restated Limited Liability Company Agreement of NRG DGPV Holdco 1 LLC, dated as of March 1, 2016, by and among NRG Yield DGPV Holding LLC, NRG Renew DG Holdings LLC and NRG Renew LLC.	Incorporated herein by reference to Exhibit 10.2 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on May 5, 2016.
10.11^	Amended and Restated Limited Liability Company Agreement of NRG DGPV Holdco 2 LLC, dated as of March 1, 2016, by and among NRG Yield DGPV Holding LLC, NRG Renew DG Holdings LLC, and NRG Renew LLC.	Incorporated herein by reference to Exhibit 10.3 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q filed on May 5, 2016.
10.12	Amendment No. 2 to Amended and Restated Limited Liability Company Agreement of NRG RPV Holdco 1 LLC, dated as of August 5, 2016, by and between NRG Yield RPV Holding LLC and NRG Residential Solar Solutions LLC.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Quarterly Report on Form 10-Q, filed on August 9, 2016.
10.13†	Employment Agreement, dated as of May 6, 2016, between NRG Yield, Inc. and Christopher S. Sotos.	Incorporated herein by reference to Exhibit 10.1 to Clearway Energy, Inc.'s Current Report on Form 8-K/A, filed on August 9, 2016.
10.14†	Amendment, dated January 1, 2018 to Employment Agreement between NRG Yield, Inc. and Christopher Sotos.	Incorporated herein by reference to Exhibit 10.28 to Clearway Energy, Inc.'s Annual Report on Form 10-K, filed on March 1, 2018.
10.15	Assignment and Assumption Agreement, effective as of February 26, 2019, among Clearway Energy Operating LLC and GIP III Zephyr Carlsbad Holdings, LLC.	Filed herewith.
21.1	Subsidiaries of Clearway Energy LLC.	Filed herewith.
31.1	Rule 13a-14(a)/15d-14(a) certification of Christopher S. Sotos.	Filed herewith.
31.2	Rule 13a-14(a)/15d-14(a) certification of Chad Plotkin.	Filed herewith.
31.3	Rule 13a-14(a)/15d-14(a) certification of Mary-Lee Stillwell.	Filed herewith.
32	Section 1350 Certification.	Furnished herewith.
101 INS	XBRL Instance Document.	Filed herewith.
101 SCH	XBRL Taxonomy Extension Schema.	Filed herewith.
101 CAL	XBRL Taxonomy Extension Calculation Linkbase.	Filed herewith.
101 DEF	XBRL Taxonomy Extension Definition Linkbase.	Filed herewith.
101 LAB	XBRL Taxonomy Extension Label Linkbase.	Filed herewith.
101 PRE	XBRL Taxonomy Extension Presentation Linkbase.	Filed herewith.

† Indicates exhibits that constitute compensatory plans or arrangements.

* This filing excludes schedules pursuant to Item 601(b)(2) of Regulation S-K, which the registrant agrees to furnish supplementary to the Securities and Exchange Commission upon request by the Commission.

^ Portions of this exhibit have been redacted and are subject to a confidential treatment request filed with the Secretary of the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended.

Item 16 — Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements 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.

CLEARWAY ENERGY LLC
(Registrant)

/s/ CHRISTOPHER S. SOTOS

Christopher S. Sotos
Chief Executive Officer
(Principal Executive Officer)

Date: February 28, 2019

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Christopher S. Sotos, Kevin P. Malcarney and Michael A. Brown, each or any of them, such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments to this report on Form 10-K, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes as such person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

In accordance with the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant in the capacities indicated on February 28, 2019.

Signatures	Title
/s/ CHRISTOPHER S. SOTOS Christopher S. Sotos Date: February 28, 2019	*President and Chief Executive Officer of Clearway Energy LLC (Principal Executive Officer)*
/s/ CHAD PLOTKIN Chad Plotkin Date: February 28, 2019	*Senior Vice President and Chief Financial Officer of Clearway Energy LLC (Principal Financial Officer)*
/s/ MARY-LEE STILLWELL Mary-Lee Stillwell Date: February 28, 2019	*Vice President and Chief Accounting Officer of Clearway Energy LLC (Principal Accounting Officer)*
CLEARWAY ENERGY, INC.	Sole Managing Member
/s/ CHRISTOPHER S. SOTOS Christopher S. Sotos Date: February 28, 2019	*President and Chief Executive Officer of Clearway Energy, Inc.*

Signature	Title	Date
/s/ NATHANIEL ANSCHUETZ Nathaniel Anschuetz	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ JONATHAN BRAM Jonathan Bram	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ BRIAN FORD Brian Ford	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ BRUCE MACLENNAN Bruce MacLennan	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ FERRELL MCCLEAN Ferrell McClean	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
Daniel B. More	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ E. STANLEY O'NEAL E. Stanley O'Neal	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ CHRISTOPHER S. SOTOS Christopher S. Sotos	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019
/s/ SCOTT STANLEY Scott Stanley	Director of Clearway Energy, Inc. Sole Managing Member of Clearway Energy LLC	February 28, 2019

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 or proxy materials has been sent to securities holders and no such report or proxy material is to be furnished to securities holders subsequent to the filing of the annual report on this Form 10-K.

Exhibit 3.3

THIRD AMENDED & RESTATED

LIMITED LIABILITY COMPANY AGREEMENT
OF
CLEARWAY ENERGY OPERATING LLC
a Delaware Limited Liability Company

THIS THIRD AMENDED & RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "**Agreement**") of **Clearway Energy Operating LLC** (the "**Company**"), dated as of September 19, 2018, is adopted by, and executed and agreed to, for good and valuable consideration, by its Member, **Clearway Energy LLC**, a Delaware limited liability company.

ARTICLE I
DEFINITIONS

1.1 *Definitions*. As used in this Agreement, the following terms have the following meanings:

"**Act**" means the Delaware Limited Liability Company Act and any successor statute, as amended from time to time.

"**Agreement**" has the meaning given that term in the introductory paragraph.

"**Capital Contribution**" means the aggregate contribution by a Member to the capital of the Company.

"**Certificate**" has the meaning given that term in Section 2.1.

"**Company**" has the meaning given that term in the introductory paragraph.

"**Covered Person**" has the meaning given that term in Section 3.2.

"**Dispose**" or "**Disposition**" means a sale, assignment, transfer, exchange or other disposition (including, without limitation, by operation of law); provided, however, that this definition does not include the granting and/or perfection of a security interest, lien or encumbrance.

"**Incapacity**" or "**Incapacitated**" means (a) with respect to a natural Person, the bankruptcy, death, incompetency or insanity of such Person and (b) with respect to any other Person, the bankruptcy, liquidation, dissolution or termination of such Person.

"**Indemnitee**" has the meaning given such term in Section 5.2.

"**Majority Members**" means Members holding a majority of the Units owned by all Members or, if there is only one Member, such Member.

"**Member**" means any Person executing this Agreement as of the date of this Agreement as a member or hereafter admitted to the Company as a member as provided in this Agreement, but does not include any Person who has ceased to be a member of the Company.

"**Person**" means a natural person, partnership (whether general or limited), limited liability company, trust, estate, association, corporation, custodian, nominee or any other individual or entity in its own or any representative capacity.

“**Proceeding**” has the meaning given such term in Section 5.2.

“**Units**” means the units of each Member representing such Member’s interest in the income, gains, losses, deductions and expenses of the Company as set forth in Schedule A hereto, as amended from time to time in accordance with the terms of this Agreement.

1.2 *Construction.* Whenever the context requires, the gender of all words used in this Agreement includes the masculine, feminine and neuter. All references to Articles and Sections refer to articles and sections of this Agreement, and all references to Schedules are to Schedules attached hereto, each of which is made a part hereof for all purposes.

ARTICLE II
ORGANIZATION

2.1 *Formation.* The Company has been organized as a Delaware limited liability company by the filing of a Certificate of Formation (the “**Certificate**”) under and pursuant to the Act.

2.2 *Name.* The name of the Company is “**Clearway Energy Operating LLC**” and all Company business shall be conducted in that name or such other names that comply with applicable law as the Majority Members may select from time to time.

2.3 *Registered Office; Registered Agent; Principal Office; Other Offices.* The registered office of the Company required by the Act to be maintained in the State of Delaware shall be the office of the initial registered agent named in the Certificate or such other office (which need not be a place of business of the Company) as the Majority Members may designate from time to time in the manner provided by law. The registered agent of the Company in the State of Delaware shall be the initial registered agent named in the Certificate or such other Person or Persons as the Majority Members may designate from time to time in the manner provided by law. The principal office of the Company shall be at such place as the Majority Members may designate from time to time, which need not be in the State of Delaware.

2.4 *Purposes.* The purposes of the Company are to engage in any business or activity that is not prohibited by the Act or the laws of the jurisdictions in which the Company engages in such business or activity.

2.5 *Foreign Qualification.* Prior to the Company’s conducting business in any jurisdiction other than Delaware, the Majority Members shall cause the Company to comply, to the extent procedures are available and those matters are reasonably within the control of the Majority Members, with all requirements necessary to qualify the Company as a foreign limited liability company in that jurisdiction.

2.6 *Term.* The term of the Company commenced on the date the original certificate of formation was filed with the office of the Secretary of State of Delaware and shall continue in existence until termination and dissolution thereof as determined under Section 8.1 of this Agreement.

2.7 *No State-Law Partnership.* The Members intend that the Company not be a partnership (including, without limitation, a limited partnership) or joint venture, and that no Member be a partner or joint venturer of any other Member, for any purposes other than federal and, if applicable, state tax purposes, and this Agreement shall not be construed to suggest otherwise. The Members intend that the Company shall be treated as a partnership for federal and, if applicable, state income tax purposes, and each Member and the Company shall file all tax returns and shall otherwise take all tax and financial reporting positions in a manner consistent with such treatment.

2.8 *Unit Certificates.* The number of authorized Units shall initially be one thousand (1,000). Units may be represented by one or more certificates in such form as the Majority Members may from time to time approve, and shall be subject to such rules for the issuance thereof as the Majority Members may from time to time determine.

2.9 *All Interests shall be Securities.* All interests in the Company shall be securities governed by Article 8 of the Uniform Commercial Code and shall be evidenced by certificates. The certificated interests shall be in registered form within the meaning of Article 8 of the Uniform Commercial Code.

ARTICLE III
MEMBERS, UNITS AND DISTRIBUTIONS

3.1 *Members.*

(a) The names, residence, business or mailing addresses and the Units of the Members are set forth in Schedule A, as amended from time to time in accordance with the terms of this Agreement.

(b) No Member, as such, shall be required to lend any funds to the Company or to make any additional contribution of capital to the Company, except as otherwise required by applicable law or by this Agreement. Any Member may, with the approval of the Majority Members, make loans to the Company, and any loan by a Member to the Company shall not be considered to be a Capital Contribution.

(c) Each Member shall execute a counterpart of this Agreement, and when a Person is admitted as a Member, such Person shall execute a counterpart of this Agreement and such Person shall be listed as a Member on Schedule A with such Member's address and Units.

3.2 *Liability of Members.*

(a) To the fullest extent permitted by applicable law, no Member, officer or employee of the Company or any employee of any such Member (in each case, a "**Covered Person**") shall (x) have any duty, including but not limited to fiduciary duties of loyalty and care, whether to the Company, to any of the Members, to the creditors of the Company or to any other third party, and (y) have any personal liability whatsoever in its capacity as a Member or otherwise, whether to the Company, to any of the Members, to the creditors of the Company or to any other third party, for the debts, liabilities, commitments or any other obligations of the Company or for any losses of the Company. Therefore, a Member shall be liable only to make Capital Contributions to the Company and the other payments as provided herein.

(b) If the Member receives a distribution from the Company, the Member will have no liability under the Act or other applicable law for the amount of the distribution after the expiration of twelve months from the date of the distribution, unless an action to recover the distribution from the Member is commenced prior to the expiration of the twelve-month period and an adjudication of liability against the Member is made in such action.

(c) To the extent that, at law or in equity, a Covered Person has duties (including fiduciary duties) or liabilities relating thereto to the Company or another Person, such Covered Person acting in accordance with this Agreement shall not be liable to the Company or any other Member for its good faith reliance on the provisions of this Agreement. The provisions of this Agreement restrict the duties and liabilities of a Covered Person otherwise existing at law or in equity and shall replace such other duties and liabilities of such Covered Person.

3.3 *Member Units.* Each Member's interest in the Company, including such Member's interest in income, gains, losses, deductions and expenses of the Company and the right to vote on certain matters as provided in this Agreement, shall be represented by the Units owned by such Member.

3.4 *Issuance of Additional Units and Interests.* The Majority Members shall have the right to cause the Company to create and issue or sell: (i) additional Units or other interests in the Company (including other classes or series thereof having different rights), (ii) obligations, evidences of indebtedness or other securities or interests convertible or exchangeable into Units or other interests in the Company and (iii) warrants, options or other rights to purchase or otherwise acquire Units or other interests in the Company. Upon the acquisition of any Units or other interests in the Company by a Person who is not a Member, such Person shall execute and deliver a counterpart of this

Agreement and shall become a Member hereunder, and Schedule A hereto shall be amended to reflect such issuance and new Member.

3.5 *Distributions.* Subject to the provision of the Act, the Majority Members shall have sole discretion regarding the amounts and timing of distributions to Members, in each case subject to the retention of, or payment to third parties of, such funds as it deems necessary with respect to the reasonable business needs of the Company which shall include (but not by way of limitation) the payment or the making of provision for the payment when due of Company obligations, including the payment of any management or administrative fees and expenses or any other obligations.

ARTICLE IV
MANAGEMENT

4.1 *Management.* The powers of the Company shall be exercised by or under the authority of, and the business and affairs of the Company shall be managed under the direction of the Members, and the Members shall make all decisions and take all actions for the Company, except as set forth herein.

4.2 *Actions; Delegation of Authority and Duties.*

(a) In managing the business and affairs of the Company and exercising its powers, the Members shall act through (i) meetings and written consents pursuant to Sections 4.3 and 4.4, and (ii) any Person to whom authority and duties have been delegated pursuant to Section 4.2(b).

(b) The Majority Members may, from time to time, delegate to one or more Persons such authority and duties as the Majority Members may deem advisable. In addition, the Majority Members may assign titles to any such Persons and delegate to such other individuals certain authority and duties, including as provided in Section 4.6. Any delegation pursuant to this Section 4.2(b) may be revoked at any time by the Majority Members.

4.3 *Meetings*.

(a) The Majority Members shall constitute a quorum for the transaction of business of the Company, and except as otherwise provided in this Agreement, the act of the Majority Members present at a meeting of the Members at which a quorum is present shall be the act of the Members.

(b) Meetings of the Members may be held at such place or places as shall be determined from time to time by resolution of the Members. At all meetings of the Members, business shall be transacted in such order as shall from time to time be determined by resolution of the Majority Members. Regular meetings of the Members shall be held at such times and places as shall be designated from time to time by resolution of the Majority Members. Notice of such meetings shall not be required. Special meetings of the Members may be called by the Majority Members, and notice of such meeting need not state the purpose or purposes of, nor the business to be transacted at, such meeting, except as may otherwise be required by law.

4.4 *Action by Written Consent or Telephone Conference.* Any action permitted or required by the Act, the Certificate or this Agreement to be taken at a meeting of the Members may be taken without a meeting if a consent in writing, setting forth the action to be taken, is signed by the Majority Members. Such consent shall have the same force and effect as a unanimous vote at a meeting and may be stated as such in any document or instrument filed with the Secretary of State of Delaware, and the execution of such consent shall constitute attendance or presence in person at a meeting of the Members. Subject to the requirements of the Act, the Certificate or this Agreement for notice of meetings, unless otherwise restricted by the Certificate, the Members may participate in and hold a meeting by means of a telephone conference or similar communications equipment by means of which all Persons participating in the meeting can hear each other, and participation in such meeting shall constitute attendance and presence in person at such meeting.

4.5 *Conflicts of Interest.* Each Covered Person at any time and from time to time may engage in and own interests in other business ventures of any and every type and description, independently or with others (including ones in competition with the Company) with no obligation to offer to the Company or any other Covered Person the right to participate therein. The Company may transact business with any Covered Person or affiliate thereof *provided* that the terms of those transactions are no less favorable than those the Company could obtain from unrelated third parties.

4.6 *Officers*.

(a) The Majority Members may, from time to time, designate one or more Persons to be officers of the Company. No officer need be a resident of the State of Delaware, or a Member. Any officers so designated shall have such authority and perform such duties as the Majority Members may, from time to time, delegate to them. The Majority Members may assign titles to particular officers. Unless the Majority Members otherwise decides, if the title is one commonly used for officers of a corporation, the assignment of such title shall constitute the delegation to such officer of the authority and duties that are normally associated with that office of a corporation. Each officer shall hold office until his successor shall be duly designated and shall qualify or until his death or until he shall resign or shall have been removed in the manner hereinafter provided. Any number of offices may be held by the same individual. The salaries or other compensation, if any, of the officers and agents of the Company shall be fixed from time to time by the Majority Members.

(b) Any officer may resign as such at any time. Such resignation shall be made in writing and shall take effect at the time specified therein, or if no time be specified, at the time of its receipt by the Majority Members. Any officer may be removed as such, either with or without cause, by the Majority Members. Designation of an officer shall not of itself create contract rights. Any vacancy occurring in any office of the Company may be filled by the Majority Members.

ARTICLE V
INDEMNIFICATION

5.1 *Exculpation.* Notwithstanding any other provisions of this Agreement, whether express or implied, or any obligation or duty at law or in equity, no Covered Person shall be liable to the Company or any other Person bound by this Agreement for any act or omission in relation to (a) the Company, its property or the conduct of its business or affairs, (b) this Agreement or any related document or (c) any transaction or investment contemplated by this Agreement or any related document, in each case, taken or omitted by such Covered Person in the reasonable belief that such act or omission is in or is not contrary to the best interests of the Company and is within the scope of authority granted to such Covered Person by the Agreement, provided such act or omission does not constitute fraud, willful misconduct, bad faith, or gross negligence.

5.2 *Indemnification.*

(a) To the fullest extent permitted by applicable law each Covered Person who was or is made a party or is threatened to be made a party to or is otherwise involved (including involvement as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**"), by reason of the fact that he, she or it is or was a Covered Person or, while a Covered Person, is or was serving at the request of the Company or any parent or subsidiary of the Company as a director, officer, employee, partner, member, manager, trustee, fiduciary or agent of another limited liability company or of a partnership, joint venture, corporation, trust or other entity or enterprise, including service with respect to an employee benefit plan (an "**Indemnitee**") shall be indemnified and held harmless by the Company to the fullest extent authorized by the Act, as the same exists or may hereafter be amended, against all expense, liability and loss (including attorneys' fees and costs, judgments, fines, excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith. Such indemnification shall continue as to an Indemnitee who has ceased to be a director, officer, employee, partner, member, manager, fiduciary, agent, or Covered Person, and shall inure to the benefit of the Indemnitee's heirs, executors and administrators; provided, however, that, except with respect to Proceedings to enforce rights to

indemnification or advance of expenses, the Company shall not indemnify any such Indemnitee in connection with a Proceeding (or part thereof) initiated by such Indemnitee except to the extent such Proceeding (or part thereof) was authorized in writing by the Majority Members.

(b) To the fullest extent permitted by applicable law, expenses (including reasonable legal fees) incurred by a Covered Person defending any Proceeding shall, from time to time, be advanced by the Company prior to the final disposition of such Proceeding upon receipt by the Company of an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined by final judicial decision from which there is no further right to appeal that the Covered Person is not entitled to be indemnified as authorized in this Section 5.2.

(c) A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such other Person's professional or expert competence and who has been selected by or on behalf of the Company, including information, opinions, reports or statements as to the value and amount of the assets, liabilities, or any other facts pertinent to the existence and amount of assets from which distributions to the Member might properly be paid.

(d) Section 3.2 and this Article V shall survive any termination of this Agreement.

5.3 *Amendments.* Any repeal or modification of this Article V shall not adversely affect any rights of such Covered Person pursuant to this Article V, including the right to indemnification and to the advancement of expenses of a Covered Person existing at the time of such repeal or modification with respect to any acts or omissions occurring prior to such repeal or modification.

ARTICLE VI
TAXES AND BOOKS

6.1 *Tax Returns.* The Majority Members shall cause to be prepared and filed all necessary federal and state income tax returns for the Company, including making any elections the Majority Members may deem appropriate and in the best interests of the Members.

6.2 *Books.* The Company shall keep books and records of accounts and shall keep minutes of the proceedings of its Members. The calendar year shall be the accounting year of the Company.

ARTICLE VII
TRANSFERS

7.1 *Assignment by Members.* No Member shall sell, assign or transfer, or offer to sell, assign or transfer or otherwise Dispose of all or any part of such Member's Units or other interests in the Company (whether voluntarily or involuntarily) without the prior written consent of the Majority Members.

7.2 *Void Assignment.* Any sale, exchange or other transfer by any Member of any Units or other interests in the Company in contravention of this Agreement shall be void and ineffectual and shall not bind or be recognized by the Company or any other party.

7.3 *Substituted Member*.

(a) An assignee of any Units or other interests in the Company of a Member, or any portion thereof, shall become a substituted Member entitled to all the rights of a Member if and only if the assignor gives the assignee such right.

(b) Upon the admission of a substituted Member, Schedule A attached hereto shall be amended to reflect the name, address and Units and other interests in the Company of such substituted Member and to eliminate

the name and address of and other information relating to the assigning Member with regard to the assigned Units and other interests in the Company.

7.4 *Effect of Assignment*.

(a) Any Member who shall assign any Units or other interest in the Company shall cease to be a Member of the Company with respect to such Units or other interest and shall no longer have any rights or privileges of a Member with respect to such Units or other interest.

(b) Upon the assignment of any Units or other interests in the Company to a Person who is not a Member, such Person shall execute and deliver a counterpart of this Agreement. However, any Person who acquires in any manner whatsoever any Units or other interest in the Company, irrespective of whether such Person has accepted and adopted in writing the terms and provisions of this Agreement, shall be deemed by the acceptance of the benefits of the acquisition thereof to have agreed to be subject to and bound by all the terms and conditions of this Agreement that any predecessor in such Units or other interest in the Company of such Person was subject to or by which such predecessor was bound.

7.5 *Effect of Incapacity.* Except as otherwise provided herein, the Incapacity of a Member shall not dissolve or terminate the Company. In the event of such Incapacity, the executor, administrator, guardian, trustee or other personal representative of the Incapacitated Member shall be deemed to be the assignee of such Member's Units or other interests in the Company and may, subject to Section 7.1, become a substituted Member upon the terms and conditions set forth in Section 7.3.

ARTICLE VIII
DISSOLUTION, LIQUIDATION AND TERMINATION

8.1 *Dissolution.* The Company shall be dissolved and its affairs shall be wound up on the first to occur of the following:

(a) the written consent of the Majority Members;

(b) the entry of a decree of judicial dissolution of the Company under Section 18-802 of the Act; or

(c) on the dissolution date set forth in the Certificate, if one is stated.

8.2 *Liquidation and Termination.* On dissolution of the Company, the Majority Members may appoint one or more Members as liquidator. The liquidators shall proceed diligently to wind up the affairs of the Company and make final distributions as provided herein and in the Act. The costs of liquidation shall be borne as a Company expense. Until final distribution, the liquidators shall continue to operate the Company properties with all of the power and authority of the Members. The steps to be accomplished by the liquidators are as follows:

(a) the liquidator shall pay, satisfy or discharge from Company funds all of the debts, liabilities and obligations of the Company (including, without limitation, all expenses incurred in liquidation) or otherwise make adequate provision for payment and discharge thereof; and

(b) all remaining assets of the Company shall be distributed to the Members in accordance with Section 3.5 by the end of the taxable year of the Company during which the liquidation of the Company occurs (or, if later, 90 days after the date of the liquidation). All distributions in kind to the Members shall be made subject to the liability of each distributee for costs, expenses and liabilities theretofore incurred or for which the Company has committed prior to the date of termination, and those costs, expenses and liabilities shall be allocated to the distributees pursuant to this Section 8.2. The distribution of cash and/or property to a Member in accordance with the provisions of this Section 8.2 constitutes a complete return to the Member of its Capital Contributions and a complete distribution to the Member of its interest in the Company and all of the Company's property and constitutes a compromise to which all Members have consented within the meaning of the Act. To the extent that a Member returns funds to the Company, it has no claim against any other Member for those funds.

8.3 *Cancellation of Certificate.* On completion of the distribution of Company assets as provided herein, the Company shall be terminated, and the Majority Members (or such other Person or Persons as the Act may require or permit) shall file a certificate of cancellation with the Secretary of State of Delaware, cancel any other filings made pursuant to Section 2.5 and take such other actions as may be necessary to terminate the Company.

ARTICLE IX
GENERAL PROVISIONS

9.1 *Notices.* Except as expressly set forth to the contrary in this Agreement, all notices, requests, or consents provided for or permitted to be given under this Agreement must be in writing and must be given either by depositing that writing in the United States mail, addressed to the recipient, postage paid, and registered or certified with return receipt requested, by a nationally recognized overnight courier service, or by delivering that writing to the recipient in person, by courier (with return receipt), or by facsimile or e-mail transmission (provided that in the case of facsimile or e-mail transmission, a copy is sent on or before the next business day by a nationally recognized overnight courier service); and a notice, request, or consent given under this Agreement is effective on receipt by the Person to receive it (in the case of facsimile or e-mail, upon delivery by such facsimile or e-mail). All notices, requests, and consents to be sent to a Member must be sent to or made at the address given for that Member on Schedule A, or such other address as that Member may specify by notice to the other Members. Whenever any notice is required to be given by law, the Certificate or this Agreement, a written waiver thereof, signed by the Person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice.

9.2 *Entire Agreement.* This Agreement constitutes the entire agreement of the Members and their affiliates relating to the Company and supersedes all prior contracts or agreements among the Members with respect to the Company, whether oral or written.

9.3 *Effect of Waiver or Consent.* A waiver or consent, express or implied, to or of any breach or default by any Person in the performance by that Person of its obligations with respect to the Company is not a consent or waiver to or of any other breach or default in the performance by that Person of the same or any other obligations of that Person with respect to the Company. Failure on the part of a Person to complain of any act of any Person or to declare any Person in default with respect to the Company, irrespective of how long that failure continues, does not constitute a waiver by that Person of its rights with respect to that default until the applicable statute-of-limitations period has run.

9.4 *Amendment or Modification.* This Agreement may be amended or modified from time to time only by a written instrument executed and agreed to by the Majority Members.

9.5 *Binding Effect.* Subject to the restrictions on Dispositions set forth in this Agreement, this Agreement is binding on and inure to the benefit of the Members and their respective heirs, legal representatives, successors and permitted assigns.

9.6 *Governing Law; Severability.* THIS AGREEMENT IS GOVERNED BY AND SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF DELAWARE, EXCLUDING ANY CONFLICT-OF-LAWS RULE OR PRINCIPLE THAT MIGHT REFER THE GOVERNANCE OR THE CONSTRUCTION OF THIS AGREEMENT TO THE LAW OF ANOTHER JURISDICTION. In the event of a direct conflict between the provisions of this Agreement and any provision of the Certificate or any mandatory provision of the Act, the applicable provision of the Certificate or the Act shall control. If any provision of this Agreement or the application thereof to any Person or circumstance is held invalid or unenforceable to any extent, the remainder of this Agreement and the application of that provision to other Persons or circumstances are not affected thereby and that provision shall be enforced to the greatest extent permitted by law.

9.7 *Counterparts*. This Agreement may be executed in multiple counterparts with the same effect as if all signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

* * * * * *

IN WITNESS WHEREOF, the Member has executed this Agreement as of the date first set forth above.

MEMBER:

CLEARWAY ENERGY LLC
Its: Sole Member

By: /s/ Kevin P. Malcarney_____
Name: Kevin P. Malcarney
Title: Senior Vice President & General Counsel

SCHEDULE A

MEMBERS	UNITS
Clearway Energy LLC 300 Carnegie Center, Suite 300 Princeton, NJ 08540	1,000
TOTAL	1,000

Exhibit 10.15
Execution Version

ASSIGNMENT AND ASSUMPTION AGREEMENT

This ASSIGNMENT AND ASSUMPTION AGREEMENT (this "Assignment"), effective as of February 26, 2019 (the "Effective Date"), among Clearway Energy Operating LLC (formerly NRG Yield Operating LLC), a Delaware limited liability company ("Assignor"), and GIP III Zephyr Carlsbad Holdings, LLC, a Delaware limited liability company ("Assignee").

RECITALS

A. Assignor is party to that certain Purchase and Sale Agreement, dated as of February 6, 2018, by and between the Assignor and NRG Gas Development Company, LLC, a Delaware limited liability company (the "Purchase Agreement"), pursuant to which the Assignor agreed to purchase 100% of the membership interests of Carlsbad Energy Holdings LLC, a Delaware limited liability company ("Carlsbad Holdings") and indirect owner of a 540 megawatt natural gas fired project in Carlsbad, California (the "Project");

B. In accordance with Section 13.10 of the Purchase Agreement, Assignor desires to transfer, assign, convey and deliver to Assignee, and Assignee desires to receive, acquire and accept from Assignor the Purchase Agreement such that the Assignee shall be the purchaser of Carlsbad Holdings and the Project; and

C. To effect the transfer of the Purchase Agreement, Assignor and Assignee are executing and delivering this Assignment.

NOW THEREFORE, in consideration of the premises, the mutual covenants and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee hereby act and agree as follows:

AGREEMENTS

1. Assignment of the Purchase Agreement. Assignor hereby transfers, assigns, conveys and delivers to Assignee all of Assignor's right, title and interest in and to the Purchase Agreement, and Assignee hereby accepts such transfer, assignment and conveyance.

2. Assumption of Assignee. Assignee hereby agrees to assume the obligations of Assignor to satisfy, perform and discharge, as the same become due, all liabilities and obligations under the Purchase Agreement.

3. Counterparts. This Assignment may be executed in separate counterparts with separate signature pages, all of which when taken together shall constitute one instrument. Delivery by facsimile or other electronic transmission of an executed original or the retransmission of any executed facsimile or other electronic transmission shall be deemed to be the same as delivery of an executed original.

4. Further Assurances. The parties hereto agree to take all such further actions and execute, acknowledge and deliver all such further documents that are necessary or useful in carrying out the purposes of this Assignment. Without limiting the foregoing, (a) Assignor agrees to execute, acknowledge and deliver to Assignee all such other additional instruments, notices, and other documents and to do all such other and further acts and things as may be reasonably necessary to more fully and effectively sell, assign, transfer and deliver to Assignee the Purchase Agreement and (b) Assignee agrees to execute, acknowledge and deliver to Assignor all such other additional instruments, notices, and other documents and to do all such other and further acts and things as may be reasonably necessary to more fully and effectively accept and assume the Purchase Agreement.

5. Governing Law. This Assignment shall be governed by and construed in accordance with the Laws of the State of New York, without giving effect to any conflict or choice of law provision that would result in the application of another state's law.

6. Successors and Assigns. This Assignment shall be binding upon and inure to the benefit of Assignor and Assignee and their respective successors and permitted assigns.

[***signature page follows***]

IN WITNESS WHEREOF, each party has caused this Assignment to be executed on its behalf by its duly authorized officer, as of the day and year first above written.

ASSIGNOR:

CLEARWAY ENERGY OPERATING LLC

By: /s/ Christopher Sotos____________________
Name: Christopher Sotos
Title: President

ASSIGNEE:

GIP III ZEPHYR CARLSBAD HOLDINGS, LLC

By: /s/ Jonathan Bram_______________________
Name: Jonathan Bram
Title: Manager

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
2011 Finance Holdco LLC		Delaware
AC Solar Holdings LLC		Delaware
Adams Community Solar Garden I LLC		Colorado
Adams Community Solar Garden II LLC		Colorado
Adams Community Solar Garden III LLC		Colorado
Adams Community Solar Gardens LLC		Colorado
Agua Caliente Borrower 2 LLC		Delaware
Agua Caliente Solar Holdings LLC		Delaware
Agua Caliente Solar, LLC		Delaware
Alta Interconnection Management II, LLC		Delaware
Alta Interconnection Management III, LLC		Delaware
Alta Interconnection Management, LLC		Delaware
Alta Realty Holdings, LLC		Delaware
Alta Realty Investments, LLC		Delaware
Alta Vista LLC		Delaware
Alta Wind 1-5 Holding Company, LLC		Delaware
Alta Wind Asset Management Holdings, LLC		Delaware
Alta Wind Asset Management, LLC		Delaware
Alta Wind Company, LLC		Delaware
Alta Wind Holdings, LLC		Delaware
Alta Wind I Holding Company, LLC		Delaware
Alta Wind I, LLC		Delaware
Alta Wind II Holding Company, LLC		Delaware
Alta Wind II, LLC		Delaware
Alta Wind III Holding Company, LLC		Delaware
Alta Wind III, LLC		Delaware
Alta Wind IV Holding Company, LLC		Delaware
Alta Wind IV, LLC		Delaware
Alta Wind V Holding Company, LLC		Delaware
Alta Wind V, LLC		Delaware
Alta Wind X Holding Company, LLC		Delaware
Alta Wind X, LLC		Delaware
Alta Wind XI Holding Company, LLC		Delaware
Alta Wind XI, LLC		Delaware
Alta Wind X-XI TE Holdco LLC		Delaware
Apple I LLC		Delaware
Arapahoe Community Solar Garden I LLC		Colorado
Avenal Park LLC		Delaware
Avenal Solar Holdings LLC		Delaware
Bashaw Solar 1, LLC		Delaware
Big Lake Holdco LLC		Delaware
Black Cat Road Solar, LLC		Delaware

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
Bluestone Solar, LLC		Delaware
Brook Street Solar 1, LLC		Delaware
Buckthorn Holdings, LLC		Delaware
Buckthorn Renewables, LLC		Delaware
Buckthorn Solar Portfolio, LLC		Delaware
Buckthorn Westex, LLC		Delaware
Buffalo Bear, LLC		Oklahoma
Bullock Road Solar 1, LLC		Delaware
BWC Swan Pond River, LLC		Delaware
CA Fund LLC		Delaware
Center St Solar 1, LLC		Delaware
Central CA Fuel Cell 1, LLC		Delaware
Chestnut Borrower LLC		Delaware
Chestnut Class B LLC		Delaware
Chestnut Fund Sub LLC		Delaware
Chisago Holdco LLC		Delaware
Clear View Acres Wind Farm, LLC		Iowa
Clearway & EFS Distributed Solar 2 LLC		Delaware
Clearway & EFS Distributed Solar LLC		Delaware
Clearway AC Solar Holdings LLC		Delaware
Clearway Chestnut Fund LLC		Delaware
Clearway DG Lakeland LLC		Delaware
Clearway Energy Operating LLC		Delaware
Clearway Solar Star LLC		Delaware
Clearway Thermal LLC		Delaware
Clearway Walnut Creek II LLC		Delaware
Clearway West Holdings LLC		Delaware
CMR Solar, LLC		Delaware
Colorado Shared Solar I LLC		Colorado
Colorado Springs Solar Garden LLC		Colorado
Continental Energy, LLC		Arizona
Crosswind Transmission, LLC		Iowa
CVSR Holdco LLC		Delaware
CVSR Holdings LLC		Delaware
Cy-Hawk Wind Energy, LLC		Iowa
Denver Community Solar Garden I LLC		Colorado
Denver Community Solar Garden II LLC		Colorado
Desert Sunlight 250, LLC		Delaware
Desert Sunlight 300, LLC		Delaware
Desert Sunlight Holdings LLC		Delaware
Desert Sunlight Investment Holdings, LLC		Delaware
DG Berkeley Rec LLC		Delaware

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
DG Berkeley Village LLC		Delaware
DG Central East LLC		Delaware
DG Central West LLC		Delaware
DG Contra Costa Operations LLC		Delaware
DG Contra Costa Waste LLC		Delaware
DG Crystal Spring LLC		Delaware
DG Dighton LLC		Delaware
DG Foxborough Elm LLC		Delaware
DG Foxborough Landfill LLC		Delaware
DG Grantland LLC		Delaware
DG Haverhill LLC		Delaware
DG Imperial Admin LLC		Delaware
DG Imperial Building LLC		Delaware
DG Lathrop Louise LLC		Delaware
DG Lincoln Middle LLC		Delaware
DG Marathon LLC		Delaware
DG Rosedale Elementary LLC		Delaware
DG Rosedale Middle LLC		Delaware
DG San Joaquin LLC		Delaware
DG Tufts Knoll LLC		Delaware
DG Tufts Science LLC		Delaware
DG Washington Middle LLC		Delaware
DG Webster LLC		Delaware
DGPV 1 LLC		Delaware
DGPV 2 LLC		Delaware
DGPV 3 LLC		Delaware
DGPV 4 Borrower LLC		Delaware
DGPV 4 LLC		Delaware
DGPV Fund 1 LLC		Delaware
DGPV Fund 2 HoldCo A LLC		Delaware
DGPV Fund 2 HoldCo B LLC		Delaware
DGPV Fund 2 LLC		Delaware
DGPV Fund 4 LLC		Delaware
DGPV Fund 4 Sub LLC		Delaware
DGPV HoldCo 1 LLC		Delaware
DGPV HoldCo 2 LLC		Delaware
DGPV HoldCo 3 LLC		Delaware
DGPV Holding LLC		Delaware
Dodge Holdco LLC		Delaware
Eagle View Acres Wind Farm, LLC		Iowa
ECP Uptown Campus HoldCo LLC		Delaware
ECP Uptown Campus Holdings LLC		Delaware

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
ECP Uptown Campus LLC		Delaware
El Mirage Energy, LLC		Arizona
El Segundo Energy Center LLC		Delaware
Elbow Creek Wind Project LLC		Texas
Electricity Sales Princeton LLC		Delaware
Elk Lake Wind Farm, LLC		Iowa
Elkhorn Holdings LLC		Delaware
Elkhorn Ridge Wind, LLC		Delaware
Energy Center Caguas HoldCo LLC		Delaware
Energy Center Caguas Holdings LLC		Delaware
Energy Center Caguas LLC		Puerto Rico
Energy Center Dover LLC		Delaware
Energy Center Harrisburg LLC		Delaware
Energy Center HCEC LLC		Delaware
Energy Center Minneapolis LLC		Delaware
Energy Center Omaha Holdings LLC		Delaware
Energy Center Omaha LLC		Delaware
Energy Center Paxton LLC		Delaware
Energy Center Phoenix LLC		Delaware
Energy Center Pittsburgh LLC		Delaware
Energy Center Princeton LLC		Delaware
Energy Center San Diego LLC		Delaware
Energy Center San Francisco LLC		Delaware
Energy Center Smyrna LLC		Delaware
Energy Center Tucson LLC		Arizona
Enterprise Solar, LLC		Delaware
Escalante Solar I, LLC		Delaware
Escalante Solar II, LLC		Delaware
Escalante Solar III, LLC		Delaware
ETCAP NES CS MN 02 LLC		Delaware
ETCAP NES CS MN 06 LLC		Delaware
Farmington Holdco LLC		Delaware
Federal Road Solar 1, LLC		Delaware
Forest Lake Holdco LLC		Delaware
Forward WindPower LLC		Delaware
Four Brothers Capital, LLC		Delaware
Four Brothers Holdings, LLC		Delaware
Four Brothers Portfolio, LLC		Delaware
Four Brothers Solar, LLC		Delaware
Frontenac Holdco LLC		Delaware
Fuel Cell Holdings LLC		Delaware
FUSD Energy, LLC		Arizona

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
GCE Holding LLC		Connecticut
GenConn Devon LLC		Connecticut
GenConn Energy LLC		Connecticut
GenConn Middletown LLC		Connecticut
Goat Wind LLC		Texas
Golden Puma Fund LLC		Delaware
Golden Puma Revolve LLC		Delaware
Granite Mountain Capital, LLC		Delaware
Granite Mountain Holdings, LLC		Delaware
Granite Mountain Renewables, LLC		Delaware
Granite Mountain Solar East, LLC		Delaware
Granite Mountain Solar West, LLC		Delaware
Green Prairie Energy, LLC		Iowa
Greene Wind Energy, LLC		Iowa
Hardin Hilltop Wind, LLC		Iowa
Hardin Wind Energy, LLC		Iowa
Harrisburg Cooling LLC		Delaware
High Plains Ranch II, LLC		Delaware
Highland Township Wind Farm, LLC		Iowa
HLE Solar Holdings, LLC		Delaware
HSD Solar Holdings, LLC		California
Huntington Beach LLC		Delaware
Hwy 14 Holdco LLC		Delaware
Iron Springs Capital, LLC		Delaware
Iron Springs Holdings, LLC		Delaware
Iron Springs Renewables, LLC		Delaware
Iron Springs Solar, LLC		Delaware
Laredo Ridge Wind, LLC		Delaware
Lenape II Solar LLC		Delaware
Lindberg Field Solar 1, LLC		Delaware
Lindberg Field Solar 2, LLC		Delaware
Longhorn Energy, LLC		Arizona
Lookout WindPower LLC		Delaware
Mapleton Solar LLC		Delaware
Marsh Landing Holdings LLC		Delaware
Marsh Landing LLC		Delaware
MC1 Solar Farm, LLC		North Carolina
Minisink Solar 1, LLC		Delaware
Minisink Solar 2, LLC		Delaware
Mission Iowa Wind, LLC		California
Mission Minnesota Wind II, LLC		Delaware
Mission Wind Laredo, LLC		Delaware

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
Mission Wind New Mexico, LLC		Delaware
Mission Wind Oklahoma, LLC		Delaware
Mission Wind PA One, LLC		Delaware
Mission Wind PA Three, LLC		Delaware
Mission Wind PA Two, LLC		Delaware
Mission Wind Pennsylvania, LLC		Delaware
Mission Wind Utah, LLC		Delaware
Monster Energy, LLC		Arizona
Montevideo Solar LLC		Delaware
Natural Gas Repowering LLC		Delaware
Northfield Holdco LLC		Delaware
NS Smith, LLC		Delaware
OC Solar 2010, LLC		California
Odin Wind Farm LLC		Minnesota
Old Westminster Solar 1, LLC		Delaware
Old Westminster Solar 2, LLC		Delaware
Osakis Solar LLC		Delaware
OWF Eight, LLC		Minnesota
OWF Five, LLC		Minnesota
OWF Four, LLC		Minnesota
OWF One, LLC		Minnesota
OWF Seven, LLC		Minnesota
OWF Six, LLC		Minnesota
OWF Three, LLC		Minnesota
OWF Two, LLC		Minnesota
Palo Alto County Wind Farm, LLC		Iowa
PC Dinuba LLC		Delaware
PESD Energy, LLC		Arizona
Pikes Peak Solar Garden I LLC		Colorado
Pine Island Holdco LLC		Delaware
Pinnacle Wind, LLC		Delaware
PM Solar Holdings, LLC		California
Pond Road Solar, LLC		Delaware
Portfolio Solar I, LLC		Delaware
Poverty Ridge Wind, LLC		Iowa
Puma Class B LLC		Delaware
Redbrook Solar 1, LLC		Delaware
Renew Canal 1 LLC		Delaware
Renew Solar CS4 Borrower LLC		Delaware
Renew Solar CS4 Class B LLC		Delaware
Renew Solar CS4 Fund LLC		Delaware
Renew Solar CS4 Fund Sub LLC		Delaware

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
Renew Solar CS4 Seller LLC		Delaware
Renew Spark 2 LLC		Delaware
Repowering Partnership Holdco LLC		Delaware
Repowering Partnership LLC		Delaware
Rollingstone Holdco LLC		Delaware
RPV 1 LLC		Delaware
RPV 2 LLC		Delaware
RPV Fund 11 LLC		Delaware
RPV Fund 12 LLC		Delaware
RPV Fund 13 LLC		Delaware
RPV HoldCo 1 LLC		Delaware
RPV Holding LLC		Delaware
San Juan Mesa Investments, LLC		Delaware
San Juan Mesa Wind Project, LLC		Delaware
Sand Drag LLC		Delaware
Sartell Solar LLC		Delaware
SCDA Solar 1, LLC		Delaware
SCWFD Energy, LLC		Arizona
Silver Lake Acres Wind Farm, LLC		Iowa
SJA Solar LLC		Delaware
Sleeping Bear, LLC		Delaware
Solar Alpine LLC		Delaware
Solar Apple LLC		Delaware
Solar AV Holdco LLC		Delaware
Solar Avra Valley LLC		Delaware
Solar Blythe II LLC		Delaware
Solar Blythe LLC		Delaware
Solar Borrego Holdco LLC		Delaware
Solar Borrego I LLC		Delaware
Solar Community 1 LLC		Delaware
Solar Community Holdco LLC		Delaware
Solar CVSR Holdings LLC		Delaware
Solar Flagstaff One LLC		Delaware
Solar Iguana LLC		Delaware
Solar Kansas South Holdings LLC		Delaware
Solar Kansas South LLC		Delaware
Solar Las Vegas MB 1 LLC		Delaware
Solar Las Vegas MB 2 LLC		Delaware
Solar Mayfair LLC		Delaware
Solar Mule LLC		Delaware
Solar Oasis LLC		Delaware
Solar Roadrunner Holdings LLC		Delaware

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
Solar Roadrunner LLC		Delaware
Solar Tabernacle LLC		Delaware
Solar Warren LLC		Delaware
Solar Wauwinet LLC		Delaware
Solar West Shaft LLC		Delaware
South Trent Holdings LLC		Delaware
South Trent Wind LLC		Delaware
Spanish Fork Wind Park 2, LLC		Utah
SPP Asset Holdings, LLC		Delaware
SPP Fund II Holdings, LLC		Delaware
SPP Fund II, LLC		Delaware
SPP Fund II-B, LLC		Delaware
SPP Fund III, LLC		Delaware
SPP Lease Holdings, LLC		Delaware
SPP P-IV Master Lessee, LLC		Delaware
Spring Canyon Energy II LLC		Delaware
Spring Canyon Energy III LLC		Delaware
Spring Canyon Expansion Class B Holdings LLC		Delaware
Spring Canyon Expansion Holdings LLC		Delaware
Spring Canyon Expansion LLC		Delaware
Spring Canyon Interconnection LLC		Delaware
Spring Street Solar 1, LLC		Delaware
Stafford St Solar 1, LLC		Delaware
Stafford St Solar 2, LLC		Delaware
Stafford St Solar 3, LLC		Delaware
Statoil Energy Power/Pennsylvania, Inc.		Pennsylvania
Steel Bridge Solar, LLC		Delaware
Sun City Project LLC		Delaware
Sunrise View Wind Farm, LLC		Iowa
Sunset View Wind Farm, LLC		Iowa
Sutton Wind Energy, LLC		Iowa
TA - High Desert, LLC		California
Taloga Wind, L.L.C.		Oklahoma
Tapestry Wind, LLC		Delaware
Thermal Canada Equities 1 Inc.		British Columbia
Thermal Canada Infrastructure Holdings LLC		Delaware
Thermal Canada Infrastructure 1 Holdings LLC		Delaware
Thermal Infrastructure Development Holdings LLC		Delaware
Thermal Infrastructure Development LLC		Delaware
Topeka Solar 1, LLC		Delaware
TOS Solar 1, LLC		Delaware
TOS Solar 2, LLC		Delaware

EXHIBIT 21.1

SUBSIDIARIES OF CLEARWAY ENERGY LLC

Entity Name		Jurisdiction
TOS Solar 4, LLC		Delaware
TOS Solar 5, LLC		Delaware
Tully Farms Solar 1, LLC		Delaware
UB Fuel Cell, LLC		Connecticut
Underhill Solar, LLC		Delaware
Utah Solar Holdings LLC		Delaware
Vail Energy, LLC		Arizona
Viento Funding II, LLC		Delaware
Viento Funding, LLC		Delaware
Virgin Lake Wind Farm, LLC		Iowa
Wabasha Holdco LLC		Delaware
Walnut Creek Energy, LLC		Delaware
Walnut Creek LLC		Delaware
Waterford Holdco LLC		Delaware
WCEP Holdings, LLC		Delaware
Webster Holdco LLC		Delaware
Wildcat Energy, LLC		Arizona
Wildorado Interconnect, LLC		Texas
Wildorado Wind, LLC		Texas
Wind Family Turbine, LLC		Iowa
Wind TE Holdco LLC		Delaware
WSD Solar Holdings, LLC		Delaware
Zontos Wind, LLC		Iowa

EXHIBIT 31.1

CERTIFICATION

I, Christopher S. Sotos, certify that:

1. I have reviewed this annual report on Form 10-K of Clearway Energy LLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ CHRISTOPHER S. SOTOS

Christopher S. Sotos
Chief Executive Officer
(Principal Executive Officer)

Date: February 28, 2019

EXHIBIT 31.2

CERTIFICATION

I, Chad Plotkin, certify that:

1. I have reviewed this annual report on Form 10-K of Clearway Energy LLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ CHAD PLOTKIN

Chad Plotkin
Chief Financial Officer
(Principal Financial Officer)

Date: February 28, 2019

EXHIBIT 31.3

CERTIFICATION

I, Mary-Lee Stillwell, certify that:

1. I have reviewed this annual report on Form 10-K of Clearway Energy LLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ MARY-LEE STILLWELL

Mary-Lee Stillwell
Chief Accounting Officer
(Principal Accounting Officer)

Date: February 28, 2019

EXHIBIT 32

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Clearway Energy LLC on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Form 10-K"), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Form 10-K.

Date: February 28, 2019

/s/ CHRISTOPHER S. SOTOS

Christopher S. Sotos
Chief Executive Officer
(Principal Executive Officer)

/s/ CHAD PLOTKIN

Chad Plotkin
Chief Financial Officer
(Principal Financial Officer)

/s/ MARY-LEE STILLWELL

Mary-Lee Stillwell
Chief Accounting Officer
(Principal Accounting Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of this Form 10-K or as a separate disclosure document.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Clearway Energy LLC and will be retained by Clearway Energy LLC and furnished to the Securities and Exchange Commission or its staff upon request.