

NRG ENERGY, INC.
Form 10-K
February 28, 2019

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

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

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

For the Transition period from _____ to _____
Commission file No. 001-15891

NRG Energy, Inc.
(Exact name of registrant as specified in its charter)
Delaware 41-1724239
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

804 Carnegie Center, Princeton, New Jersey 08540
(Address of principal executive offices) (Zip Code)
(609) 524-4500
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:
Title of Each Class Name of Exchange on Which Registered
Common Stock, par value \$0.01 New York Stock Exchange

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 No

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

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. Yes No

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 No

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.

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 Accelerated filer Non-accelerated filer Smaller reporting company
Emerging growth company

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

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No
As of the last business day of the most recently completed second fiscal quarter, the aggregate market value of the common stock of the registrant held by non-affiliates was approximately \$7,964,294,696 based on the closing sale price of \$30.70 as reported on the New York Stock Exchange.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date.

Class	Outstanding at January 31, 2019
Common Stock, par value \$0.01 per share	280,997,550

Documents Incorporated by Reference:

Portions of the Registrant's definitive Proxy Statement relating to its 2019 Annual Meeting of Stockholders are incorporated by reference into Part III of this Annual Report on Form 10-K

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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:

2023 Term Loan Facility	The Company's \$1.7 billion term loan facility due 2023, a component of the Senior Credit Facility
Adjusted EBITDA	Adjusted earnings before interest, taxes, depreciation and amortization
ARO	Asset Retirement Obligation
ASC	The FASB Accounting Standards Codification, which the FASB established as the source of authoritative GAAP
ASU	Accounting Standards Updates – updates to the ASC
Average realized prices	Volume-weighted average power prices, net of average fuel costs and reflecting the impact of settled hedges
Bankruptcy Code	Chapter 11 of Title 11 of the U.S. Bankruptcy Code
Bankruptcy Court	United States Bankruptcy Court for the Southern District of Texas, Houston Division
Baseload	Units expected to satisfy minimum baseload requirements of the system and produce electricity at an essentially constant rate and run continuously
BETM	Boston Energy Trading and Marketing LLC
BTU	British Thermal Unit
Business Solutions	NRG's business solutions group, which includes demand response, commodity sales, energy efficiency and energy management services
CAA	Clean Air Act
CAISO	California Independent System Operator
Carlsbad	Carlsbad Energy Center, a 528 MW natural gas-fired project located in Carlsbad, CA
CCF	Carbon Capture Facility
CDD	Cooling Degree Day
CDWR	California Department of Water Resources
CFTC	U.S. Commodity Futures Trading Commission
Chapter 11 Cases	Voluntary cases commenced by the GenOn Entities under the Bankruptcy Code in the Bankruptcy Court
C&I	Commercial, industrial and governmental/institutional
CES	Clean Energy Standard
Cleco	Cleco Corporate Holdings LLC
CO ₂	Carbon Dioxide
CO _{2e}	Carbon Dioxide Equivalents
ComEd	Commonwealth Edison
Company	NRG Energy, Inc.
CPP	Clean Power Plan
CPUC	California Public Utilities Commission
CWA	Clean Water Act
D.C. Circuit	U.S. Court of Appeals for the District of Columbia Circuit
Distributed Solar	Solar power projects that primarily sell power to customers for usage on site, or are interconnected to sell power into a local distribution grid
DNREC	Delaware Department of Natural Resources and Environmental Control
Dominion	Dominion Resources, Inc.
DSI	Dry Sorbent Injection
DSU	Deferred Stock Unit
Economic gross margin	Sum of energy revenue, capacity revenue, retail revenue and other revenue, less cost of fuels and other cost of sales
EGU	Electric Generating Unit
Emani	European Mutual Association for Nuclear Insurance

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EME	Edison Mission Energy
EMAAC	Eastern Mid-Atlantic Area Council
Energy Plus Holdings	Energy Plus Holdings LLC
EPA	U.S. Environmental Protection Agency
EPC	Engineering, Procurement and Construction
EPSA	The Electric Power Supply Association
ERCOT	Electric Reliability Council of Texas, the Independent System Operator and the regional reliability coordinator of the various electricity systems within Texas
ESP	Electrostatic Precipitator
ESPP	NRG Energy, Inc. Amended and Restated Employee Stock Purchase Plan
ESPS	Existing Source Performance Standards
Exchange Act	The Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
FGD	Flue gas desulfurization
FPA	Federal Power Act
Fresh Start	Reporting requirements as defined by ASC-852, Reorganizations
FTRs	Financial Transmission Rights
GAAP	Accounting principles generally accepted in the U.S.
GenConn	GenConn Energy LLC
GenOn	GenOn Energy, Inc.
GenOn Americas Generation	GenOn Americas Generation, LLC
GenOn Entities	GenOn and certain of its wholly owned subsidiaries, including GenOn Americas Generation, that filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code in the Bankruptcy Court on June 14, 2017
GenOn Mid-Atlantic	GenOn Mid-Atlantic, LLC and, except where the context indicates otherwise, its subsidiaries, which include the coal generation units at two generating facilities under operating leases
GHG	Greenhouse Gas
GIP	Global Infrastructure Partners
Green Mountain Energy	Green Mountain Energy Company
GW	Gigawatt
GWh	Gigawatt Hour
HAP	Hazardous Air Pollutant
HDD	Heating Degree Day
Heat Rate	A measure of thermal efficiency computed by dividing the total BTU content of the fuel burned by the resulting kWhs generated. Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output measured is gross or net generation and is generally expressed as BTU per net kWh
HLBV	Hypothetical Liquidation at Book Value
HLW	High-level radioactive waste
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
Indexed Rate	An indexed rate means that the price of the electricity sold to the customer is tied to an underlying variable, or index, such as monthly closing of NYMEX natural gas
IPPNY	Independent Power Producers of New York
ISO	Independent System Operator, also referred to as RTOs
ISO-NE	ISO New England Inc.

ITC	Investment Tax Credit
kWh	Kilowatt-hour

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LaGen	Louisiana Generating LLC
LIBOR	London Inter-Bank Offered Rate
LSE	Load Serving Entities
LTIPs	Collectively, the NRG LTIP and the NRG GenOn LTIP
LTSA	Long-Term Service Agreement
Mass Market	Residential and small commercial customers
MATS	Mercury and Air Toxics Standards promulgated by the EPA
MDth	Thousand Dekatherms
Merger	The merger completed on December 14, 2012 by NRG and GenOn pursuant to the Merger Agreement
Midwest Generation	Midwest Generation, LLC
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	Million British Thermal Units
MSU	Market Stock Unit
MW	Megawatts
MWh	Saleable megawatt hour net of internal/parasitic load megawatt-hour
NAAQS	National Ambient Air Quality Standards
NEIL	Nuclear Electric Insurance Limited
NEPOOL	New England Power Pool
NERC	North American Electric Reliability Corporation
Net Capacity Factor	The net amount of electricity that a generating unit produces over a period of time divided by the net amount of electricity it could have produced if it had run at full power over that time period. The net amount of electricity produced is the total amount of electricity generated minus the amount of electricity used during generation
Net Exposure	Counterparty credit exposure to NRG, net of collateral
Net Generation	The net amount of electricity produced, expressed in kWhs or MWhs, that is the total amount of electricity generated (gross) minus the amount of electricity used during generation
NJBPU	New Jersey Board of Public Utilities
NOL	Net Operating Loss
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPNS	Normal Purchase Normal Sale
NQSO	Non-Qualified Stock Option
NRC	U.S. Nuclear Regulatory Commission
NRG	NRG Energy, Inc.
NRG GenOn LTIP	NRG 2010 Stock Plan for GenOn Employees (formerly the GenOn Energy, Inc. 2010 Omnibus Incentive Plan, which was assumed by NRG in connection with the Merger)
NRG LTIP	NRG Energy, Inc. Amended and Restated Long-Term Incentive Plan
NRG Yield, Inc.	NRG Yield, Inc., which changed it's name to Clearway energy, Inc. following the sale by NRG or NRG Yield and the Renewables Platform to GIP
Nuclear Decommissioning Trust Fund	NRG's nuclear decommissioning trust fund assets, which are for the Company's portion of the decommissioning of the STP, units 1 & 2
Nuclear Waste Policy Act	U.S. Nuclear Waste Policy Act of 1982
NYISO	New York Independent System Operator
NYMEX	New York Mercantile Exchange
NYSPSC	New York State Public Service Commission
OCI/OCL	Other Comprehensive Income/(Loss)
ORDC	Operating Reserve Demand Curve

PA PUC

Pennsylvania Public Utility Commission

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Peaking	Units expected to satisfy demand requirements during the periods of greatest or peak load on the system
PER	Peak Energy Rent
Petition Date	June 14, 2017
PG&E	PG&E Corporation (NYSE: PCG) and its primary operating subsidiary, Pacific Gas and Electric Company
Pipeline	Projects that range from identified lead to shortlisted with an offtake, and represents a lower level of execution certainty
PJM	PJM Interconnection, LLC
PM2.5	Particulate Matter that has a diameter of less than 2.5 micrometers
PPA	Power Purchase Agreement
PPM	Parts per million
PSU	Performance Stock Unit
PTC	Production Tax Credit
PUCT	Public Utility Commission of Texas
PURPA	Public Utility Regulatory Policies Act of 1978
RCRA	Resource Conservation and Recovery Act of 1976
Reliant Energy	Reliant Energy Retail Services, LLC
REMA	NRG REMA LLC, which leases a 100% interest in the Shawville generating facility and 16.7% and 16.5% interests in the Keystone and Conemaugh generating facilities, respectively
Renewables	Consist of the following projects retained by NRG: Agua, Ivanpah, Guam, NFL stadiums
Renewables Platform	The renewable operating and development platform sold to GIP with NRG's interest in NRG Yield.
Restructuring Support Agreement	Restructuring Support and Lock-Up Agreement, dated as of June 12, 2017 and as amended on October 2, 2017, by and among GenOn Energy, Inc., GenOn Americas Generation, LLC, and subsidiaries signatory thereto, NRG Energy, Inc. and the noteholders signatory thereto
Retail	Reporting segment that includes NRG's residential and small commercial businesses which go to market as Reliant, NRG and other brands owned by NRG, as well as Business Solutions
Revolving Credit Facility	The Company's \$2.4 billion revolving credit facility, a component of the Senior Credit Facility, due 2021
RGGI	Regional Greenhouse Gas Initiative
RMR	Reliability Must-Run
ROFO	Right of First Offer
ROFO Agreement	Second Amended and Restated Right of First Offer Agreement by and between NRG Energy, Inc. and NRG Yield, Inc.
RPM	Reliability Pricing Model
RPS	Renewable Portfolio Standards
RPSU	Relative Performance Stock Unit
RSU	Restricted Stock Unit
RTO	Regional Transmission Organization
SCE	Southern California Edison Company
SCR	Selective Catalytic Reduction Control System
SDG&E	San Diego Gas & Electric
SEC	U.S. Securities and Exchange Commission
Securities Act	The Securities Act of 1933, as amended
Senior Credit Facility	NRG's senior secured credit facility, comprised of the Revolving Credit Facility and the 2023 Term Loan Facility

Prior to June 30, 2016, the Company's senior secured facility, comprised of the Term Loan Facility and the Revolving Credit Facility. On June 30, 2016, the Company replaced the Senior

Senior Notes	As of December 31, 2018, NRG's \$3.8 billion outstanding unsecured senior notes consisting of \$733 million of 6.25% senior notes due 2024, \$1.0 billion of the 7.25% senior notes due 2026, \$1.23 billion of the 6.625% senior notes due 2027, and \$821 million of 5.75% senior notes due 2028
Services Agreement	NRG provided GenOn with various management, personnel and other services, which include human resources, regulatory and public affairs, accounting, tax, legal, information systems, treasury, risk management, commercial operations, and asset management, as set forth in the services agreement with GenOn
Settlement Agreement	A settlement agreement and any other documents necessary to effectuate the settlement among NRG, GenOn, and certain holders of senior unsecured notes of GenOn Americas Generations and GenOn, and certain of GenOn's direct and indirect subsidiaries
SNF	Spent Nuclear Fuel
SO ₂	Sulfur Dioxide
South Central Portfolio	NRG's South Central Portfolio, which owns and operates a 3,555 MW portfolio of generation assets consisting of 225 MW Bayou Cove, 430 MW Big Cajun-I, 1,461 MW Big Cajun-II, 1,263 MW Cottonwood and 176 MW Sterlington, and serves a customer base of cooperatives, municipalities and regional utilities under load contracts.
SPP	Solar Power Partners
S&P	Standard & Poor's
STP	South Texas Project — nuclear generating facility located near Bay City, Texas in which NRG owns a 44% interest
STPNOC	South Texas Project Nuclear Operating Company
Tax Act	The Tax Cuts and Jobs Act of 2017
Term Loan Facility	Prior to June 30, 2016, the Company's \$2.0 billion term loan facility due 2018.
Texas Genco	Texas Genco LLC
TSA	Transportation Services Agreement
TSR	Total Shareholder Return
TWCC	Texas Westmoreland Coal Co.
TWh	Terawatt Hour
UPMC	University of Pittsburgh Medical Center
U.S.	United States of America
U.S. DOE	U.S. Department of Energy
Utility-Scale Solar	Solar power projects, typically 20 MW or greater in size (on an alternating current basis), that are interconnected into the transmission or distribution grid to sell power at a wholesale level
VaR	Value at Risk
VCP	Voluntary Clean-Up Program
VIE	Variable Interest Entity
WECC	Western Electricity Coordinating Council
ZECs	Zero Emissions Credits

PART I

Item 1 — Business

General

NRG Energy, Inc., or NRG or the Company, is an energy company built on dynamic retail brands with diverse generation assets. NRG brings the power of energy to consumers by producing, selling and delivering electricity and related products and services in major competitive power markets in the U.S. in a manner that delivers value to all of NRG's stakeholders. NRG is perfecting the integrated model by balancing retail load with generation supply within its deregulated markets, while evolving to a customer-driven business. The Company sells energy, services, and innovative, sustainable products and services directly to retail customers under the names "NRG" and "Reliant" and other brand names owned by NRG supported by approximately 23,000^(a) MW of generation as of December 31, 2018. NRG was incorporated as a Delaware corporation on May 29, 1992.

Strategy

NRG's strategy is to maximize stockholder value through the safe production and sale of reliable power to its customers in the markets served by the Company, while positioning the Company to provide innovative solutions to the end-use energy consumer. This strategy is designed to enable the Company to optimize the integrated model to generate predictable cash flow, significantly strengthen earnings and cost competitiveness, and lower risk and volatility. Sustainability is an integral piece of NRG's strategy and ties directly to business success, reduced risks and brand value.

To effectuate the Company's strategy, NRG is focused on: (i) serving the energy needs of end-use residential, commercial and industrial customers in competitive markets through multiple brands and channels with a variety of retail energy products and services differentiated by innovative features, premium service, sustainability, and loyalty/affinity programs; (ii) deploying innovative and renewable energy solutions for consumers within its retail businesses; (iii) excellence in operating performance of its existing assets including optimal hedging of generation assets and retail load operations; and (iv) engaging in a proactive capital allocation plan within the dictates of prudent balance sheet management.

Transformation Plan

NRG is well underway in executing its Transformation Plan. The Company expects to fully implement the Transformation Plan by the end of 2020 with a significant portion completed in 2018. The three-part, three-year plan is comprised of the following targets and the Company's achievements towards such targets are as follows:

Operations and Cost Excellence

Recurring cost savings and margin enhancement of \$1,065 million, which consists of \$590 million of cumulative cost savings, a \$215 million net margin enhancement program, \$50 million annual reduction in maintenance capital expenditures, and \$210 million in permanent selling, general and administrative expense reduction associated with asset sales. The Company realized annual cost savings of \$532 million and \$32 million of margin enhancements during the year ended December 31, 2018 and is on track to realize \$590 million of cost savings and \$135 million of margin enhancements in 2019.

The Company expects to realize (i) \$370 million of non-recurring working capital improvements through 2020 and (ii) approximately \$290 million of one-time costs to achieve. By December 31, 2018, NRG has realized \$333 million of non-recurring working capital improvements and \$194 million of one-time costs to achieve, and expects to incur approximately \$95 million of one-time costs to achieve in 2019.

Portfolio Optimization

Targeted and completed \$3.0 billion of asset sale cash proceeds received through February 28, 2019.

Capital Structure and Allocation

As of December 31, 2018, the Company achieved the previously announced target of reducing consolidated corporate debt to 3.0x net debt / adjusted EBITDA^(b) credit ratio on a pro forma basis that includes the South Central Portfolio sale proceeds. As of February 28, 2019, the Company completed \$1.5 billion of share repurchases.

- (a) excluding discontinued operations and held for sale
- (b) adjusted EBITDA as defined per the Senior Credit Facility

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Business Overview

As of December 31, 2018, the Company's core businesses include (i) retail electricity and natural gas for residential, industrial and commercial consumers, including personal power solutions and Business Solutions, which includes C&I customers and other distributed and reliability products, and (ii) wholesale conventional generation primarily to support the retail business. The Company is committed to continuing to evaluate and streamline its generation portfolio to focus on locational value and supporting the retail business in each of the markets where the Company participates. In furtherance of this goal, during 2018, NRG divested non-core businesses which included, among others: (i) NRG Yield, Inc. and the Company's Renewables Platform, and (ii) the Company's South Central Portfolio. The Company previously had an ownership interest in GenOn Energy, Inc. which filed for bankruptcy on June 14, 2017. As a result of the bankruptcy filing, NRG determined it no longer controlled GenOn and deconsolidated GenOn and its subsidiaries for financial reporting purposes. On December 14, 2018, GenOn emerged from bankruptcy as a standalone company no longer owned by NRG.

Retail

Retail provides energy and related services to residential, industrial and commercial consumers through various brands and sales channels across the U.S. In 2018, Retail delivered approximately 67 TWhs of electricity and 11 MDth of natural gas and served approximately 3.1 million customers. Retail's results make it one of the largest competitive energy retailers in the U.S. As of the end of 2018, Retail has recurring electricity and/or natural gas sales in 19 U.S. states, the District of Columbia, and 2 provinces in Canada. Retail's brands, collectively, are the largest providers of electricity in Texas.

Residential and small commercial (Mass Market) consumers make purchase decisions based on a variety of factors, including price, customer service, brand, product choices and value-added features. These consumers purchase products through a variety of sales channels, including direct sales, call centers, websites, brokers and brick-and-mortar stores. Through its broad range of service offerings and value propositions, Retail is able to attract, retain, and increase the value of its customer relationships. Retail's brands are recognized for exemplary customer service, innovative smart energy and technology product offerings and environmentally friendly solutions. Included in Retail is the Company's Business Solutions group, which includes demand response, commodity sales, energy efficiency and energy management solutions. An integrated provider of supply and distributed energy resources, Business Solutions focuses on distributed products and services as businesses seek greater reliability, cleaner power or other benefits that they cannot obtain from the grid. These solutions include system power, distributed generation, solar and wind products, carbon management and specialty services, backup generation, storage and distributed solar, demand response and energy efficiency and advisory services. In providing on-site energy solutions, the Company often benefits from its ability to supply energy products from its wholesale generation portfolio to commercial and industrial retail customers. In 2018, Business Solutions delivered approximately 21 TWhs of electricity and managed approximately 2,000 MWs of demand response positions across its portfolio.

Generation

The Company's wholesale power generation business includes plant operations, commercial operations, EPC, asset management, energy services and other critical related functions.

The wholesale generation business is capital-intensive and commodity-driven with numerous industry participants that compete on the basis of the location of their plants, fuel mix, plant efficiency and reliability services. The Company owns a diversified power generation portfolio with approximately 23,000^(a) MW of fossil fuel, nuclear and renewable generation capacity at 37 plants as of December 31, 2018. In addition, the Company operates approximately 8,200 MW of coal and natural gas generation at 17 plants on behalf of third parties as of December 31, 2018. The Company's power generation assets are diversified by fuel-type, dispatch level and region, which helps mitigate the risks associated with fuel price volatility and market demand cycles. NRG's U.S. baseload and intermediate facilities provide the Company with a significant source of cash flow. Many of NRG's generation facilities are located near population centers, which often translates into higher revenue. Additionally, NRG's peaking facilities provide opportunities to capture significant upside potential during periods of high demand, which typically drive higher energy prices.

(a) excluding discontinued operations and held for sale

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Wholesale power generation is a regional business that is currently highly fragmented and diverse in terms of industry structure. As such, there is a wide variation in terms of the capabilities, resources, nature and identities of the companies the Company competes with depending on the market. Competitors include regulated utilities, municipalities, cooperatives, other independent power producers, and power marketers or trading companies, including those owned by financial institutions. Many of the Company's generation assets, however, are located within densely populated areas that tend to have higher wholesale pricing as a result of relatively favorable local supply-demand balance. The Company believes that its extensive generation portfolio provides asset optimization opportunities. NRG continuously evaluates opportunities for development of new generation, on both a merchant and contracted basis.

NRG Operations

The NRG businesses described above are supported through the NRG operational infrastructure, which begins with the Company's asset fleet and the associated commercial and retail operations. The images below illustrate NRG's U.S. power generation, net capacity and retail capabilities as of December 31, 2018, excluding discontinued operations:

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The following table summarizes NRG's global generation portfolio as of December 31, 2018:

Generation Type	Global Generation Portfolio ^{(a)(b)(c)}			Total Global
	(In MW)			
	Generation			
	Texas ^(f)	East/West ^{(d)(e)}	Other	
Natural gas	4,739	5,248	—	9,987
Coal	4,174	3,745	—	7,919
Oil	—	3,621	—	3,621
Nuclear	1,126	—	—	1,126
Wind	—	75	—	75
Utility Scale Solar	—	322	—	322
Battery Storage & Distributed Solar	2	—	60	62
Total generation capacity	10,041	13,011	60	23,112

(a) All Utility Scale Solar and Distributed Solar facilities are described in MW on an alternating current basis. MW figures provided represent nominal summer net MW capacity of power generated as adjusted for the Company's owned or leased interest excluding capacity from inactive/mothballed units

(b) The NRG Yield Inc. and the Renewables Platform businesses, which represented 3,428 MW of global generation, were sold on August 31, 2018

(c) Excludes the South Central Portfolio, except for Cottonwood, which was sold on February 4, 2019, as well as the 528 MW natural gas-fired project in Carlsbad, California that was sold on February 27, 2019

(d) Includes the 1,263 MW Cottonwood facility that was sold to Cleco on February 4, 2019, which the Company is leasing until 2025

(e) Includes International and Renewables

(f) Does not include plants outside of the ERCOT market or the Sherbino wind farm, which are included in East/West

The Company has the advantage of being able to supply its retail businesses with its own generation, which can reduce the need to sell and buy power from other institutions and intermediaries, resulting in lower transaction costs and credit exposures. This combination of generation and retail allows for a reduction in actual and contingent collateral, through offsetting transactions and by reducing the need to hedge the retail power supply through third parties.

The generation and retail combination also provides stability in cash flows, as changes in commodity prices generally have offsetting impacts between the two businesses. This offsetting nature, in relation to changes in market prices, is an integral part of NRG's goal of providing a reliable source of future cash flow for the Company.

NRG's portfolio diversification and commercial operations hedging strategy provides the Company with reliable future cash flows. NRG has hedged a portion of its coal and nuclear capacity with decreasing hedge levels through 2022. In addition, NRG's cleared capacity revenues not only enhance the reliability of future cash flows but are not correlated to natural gas prices during the contracted period. As of December 31, 2018, the Company had purchased fuel forward under fixed price contracts, with contractually-specified price escalators, for approximately 68% of its expected coal requirement from 2019 to 2020. The Company enters into additional hedges when it believes market conditions are favorable.

Commercial Operations Overview

NRG seeks to maximize profitability and manage cash flow volatility through the marketing, trading and sale of energy, capacity and ancillary services into spot, intermediate and long-term markets and through the active management and trading of transmission rights, emissions allowances, renewable energy credits, fuel supplies and transportation-related services. The Company's principal objectives are the realization of the full market value of its overall portfolio, including the capture of its extrinsic value, the management and mitigation of commodity market risk and the reduction of cash flow volatility over time.

NRG enters into supply contracts, power sales and hedging arrangements via a wide range of products and contracts, including PPAs, fuel supply contracts, capacity auctions, natural gas derivative instruments and other financial instruments. In addition, because changes in power prices in the markets where NRG operates are generally correlated to changes in natural gas prices, NRG uses hedging strategies that may include power and natural gas forward purchases and sales contracts to manage the commodity price risk. The objective of these hedging strategies is to stabilize the cash flow generated by NRG's overall portfolio.

In addition to power purchases and sales and hedging arrangements, NRG trades electric power, natural gas and related commodity and financial products, including forwards, futures, options and swaps. The Company seeks to generate profits from volatility in the price of electricity, capacity, fuels and transmission congestion by buying and selling contracts in wholesale markets under guidelines approved by the Company's risk management committee.

Retail Operations

NRG's retail businesses sell electricity to residential, commercial and industrial consumers at either fixed, indexed or variable prices. Residential and smaller commercial consumers typically contract for terms ranging from one month to five years while industrial contracts are often between one year and five years in length. In 2018, NRG's retail businesses sold approximately 67 TWhs of electricity and 11 MDth of natural gas. In any given year, the quantity of TWhs and MDth sold can be affected by weather, economic conditions and competition. The wholesale supply is typically purchased as the anticipated load is contracted from a combination of NRG's wholesale portfolio and other third parties. The ability to choose supply from the market or the Company's portfolio allows for an optimal combination to support and stabilize retail margins.

Capacity and Other Contracted Revenue Sources

NRG's revenues and cash flows benefit from capacity/demand payments and other contracted revenue sources, originating from market clearing capacity prices, Resource Adequacy contracts, tolling arrangements and other long-term contractual arrangements:

Capacity auctions — The Company's largest sources of capacity revenues are capacity auctions in PJM and ISO-NE. Both PJM and ISO-NE operate a pay-for-performance model where capacity payments are modified based on real-time performance, where NRG's actual revenues will be the combination of revenues based on the cleared auction MWs plus the net of any over- and under-performance of NRG's fleet.

2021/2022 PJM Auction Results — On May 23, 2018, PJM announced the results of its 2021/2022 base residual auction. NRG cleared approximately 4,619 MW of Capacity Performance product for the generation fleet. NRG's expected capacity revenues from the base residual auction for the 2021/2022 delivery year are approximately \$322 million. The table below provides a detailed description of NRG's 2021/2022 base residual auction results from May 23, 2018:

Generation		
Zone	Cleared Capacity (MW)	Price (\$/MW-day)
COMED	3,995	\$ 195.55
EMAAC	552	\$ 165.73
PEPCO	72	\$ 140.00
Total	4,619	

NRG through its demand response business received a capacity award of 3,194 MWs at a volume weighted average price of \$155.16 per MW-day, or \$181 million of revenue, and pays out a portion of these revenues to our customers reflected as cost of sales.

2022/2023 ISO-NE Auction Results&