

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, 2024.
- ☐ **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
(State or other jurisdiction of incorporation or organization)

910 Louisiana Street, Houston, Texas
(Address of principal executive offices)

41-1724239
(I.R.S. Employer Identification No.)

77002
(Zip Code)

(713) 537-3000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Exchange on Which Registered</u>
Common Stock, par value \$0.01	NRG	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 required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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

Large Accelerated Filer ☒
Non-accelerated filer ☐

Accelerated filer ☐
Smaller reporting company ☐
Emerging growth company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C 7262(b)) by the registered public accounting firm that prepared or issued its audit report ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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 \$12,225,722,798 based on the closing sale price of \$77.86 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.

<u>Class</u>	<u>Outstanding at January 31, 2025</u>
Common Stock, par value \$0.01 per share	198,068,576

Documents Incorporated by Reference:

Portions of the Registrant's definitive Proxy Statement relating to its 2025 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:

ACE	Affordable Clean Energy
Acquisition	The acquisition of Vivint Smart Home, Inc. by NRG completed on March 10, 2023
Adjusted EBITDA	Adjusted earnings before interest, taxes, depreciation and amortization
AESO	Alberta Electric System Operator
ARO	Asset Retirement Obligation
ASC	The FASB Accounting Standards Codification, which the FASB established as the source of authoritative GAAP
ASR	Accelerated Share Repurchase
ASU	Accounting Standards Updates – updates to the ASC
AUC	Alberta Utilities Commission
BTU	British Thermal Unit
Business	NRG Business, which serves business customers
CAA	Clean Air Act
CAISO	California Independent System Operator
CAMT	15% Corporate Alternative Minimum Tax enacted by the IRA on August 16, 2022
CDD	Cooling Degree Day
CFTC	U.S. Commodity Futures Trading Commission
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalents
Company	NRG Energy, Inc.
CONE	Cost of New Entry
Convertible Senior Notes	As of December 31, 2024, consists of NRG's \$232 million unsecured 2.750% Convertible Senior Notes due 2048
Cottonwood	Cottonwood Generating Station, a 1,139 MW natural gas-fueled plant
CPP	Clean Power Plan
CPUC	California Public Utilities Commission
D.C. Circuit	U.S. Court of Appeals for the District of Columbia Circuit
DSI	Dry Sorbent Injection
DSU	Deferred Stock Unit
Dth	Dekatherms
Dual fuel customers	Customer that have both electricity and natural gas service with the Company
Economic gross margin	Sum of retail revenue, energy revenue, capacity revenue and other revenue, less cost of fuels, purchased energy and other cost of sales
ELG	Effluent Limitations Guidelines which are EPA regulations issued under the federal Clean Water Act
EPA	U.S. Environmental Protection Agency
EPC	Engineering, Procurement and Construction
ERCOT	Electric Reliability Council of Texas, the Independent System Operator and the regional reliability coordinator of the various electricity systems within Texas
ESPP	NRG Energy, Inc. Amended and Restated Employee Stock Purchase Plan
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
FTRs	Financial Transmission Rights

GAAP	Generally accepted accounting principles in the United States
GHG	Greenhouse Gas
Green Mountain Energy	Green Mountain Energy Company
GW	Gigawatts
GWh	Gigawatt Hours
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
Home	NRG Home, which serves residential customers
ICE	Intercontinental Exchange
IoT	Internet of Things
IRA	Inflation Reduction Act
ISO	Independent System Operator, also referred to as RTOs
ISO-NE	ISO New England Inc.
Ivanpah	Ivanpah Solar Electric Generation Station, a 385 MW solar thermal power plant located in California's Mojave Desert in which NRG owns 54.5% interest
kWh	Kilowatt-hours
LSEs	Load Serving Entities
LTIPs	Collectively, the NRG LTIP and the Vivint LTIP
MDth	Thousand Dekatherms
Midwest Generation	Midwest Generation, LLC
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	Million British Thermal Units
MMDth	Million Dekatherms
MW	Megawatts
MWh	Saleable megawatt hour net of internal/parasitic load megawatt-hour
NAAQS	National Ambient Air Quality Standards
NEPOOL	New England Power Pool
NERC	North American Electric Reliability Corporation
NERC-CIP	North American Electric Reliability Corporation Critical Infrastructure Protection
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
NIST	National Institute of Standards and Technology
Nodal	Nodal Exchange is a derivatives exchange
NOL	Net Operating Loss
NO _x	Nitrogen Oxides
NPNS	Normal Purchase Normal Sale
NRC	U.S. Nuclear Regulatory Commission
NRG	NRG Energy, Inc.
NRG LTIP	NRG Energy, Inc. Amended and Restated Long-Term Incentive Plan, as amended
Nuclear Decommissioning Trust Fund	NRG's nuclear decommissioning trust fund assets, which were for the Company's portion of the decommissioning of the STP, units 1 & 2 through the sale of STP on November 1, 2023
NYISO	New York Independent System Operator
NYMEX	New York Mercantile Exchange
OCI/OCL	Other Comprehensive Income/(Loss)

Peaking	Units expected to satisfy demand requirements during the periods of greatest or peak load on the system
PG&E	PG&E Corporation (NYSE: PCG) and its primary operating subsidiary, Pacific Gas and Electric Company
PJM	PJM Interconnection, LLC
PM2.5	Particulate Matter that has a diameter of less than 2.5 micrometers
PPA	Power Purchase Agreement
PUCT	Public Utility Commission of Texas
RCRA	Resource Conservation and Recovery Act of 1976
Receivables Facility	NRG Receivables LLC, a bankruptcy remote, special purpose, wholly-owned indirect subsidiary of the Company's \$2.3 billion accounts receivables securitization facility due 2025, which was last amended on June 21, 2024
Receivables Securitization Facilities	Collectively, the Receivables Facility and the Repurchase Facility
RECs	Renewable Energy Certificates
Renewable PPA	A third-party PPA entered into directly with a renewable generation facility for the offtake of the RECs or other similar environmental attributes generated by such facility, coupled with the associated power generated by that facility
Renewables	Consists of the following projects in which NRG has an ownership interest: Ivanpah and solar generating stations located at various NFL Stadiums
Renewables Platform	The renewable operating and development platform sold to Global Infrastructure Partners with NRGs interest in NRG Yield
REP	Retail electric provider
Repurchase Facility	NRGs \$150 million uncommitted repurchase facility related to the Receivables Facility due 2024, which was terminated on June 21, 2024
Revolving Credit Facility	The Company's \$4.2 billion revolving credit facility due 2029, which was last amended on December 20, 2024
RGGI	Regional Greenhouse Gas Initiative
RMR	Reliability Must-Run
RPS	Renewable Portfolio Standards
RPSU	Relative Performance Stock Unit
RSU	Restricted Stock Unit
RTO	Regional Transmission Organization
SCR	Selective Catalytic Reduction Control System
SEC	U.S. Securities and Exchange Commission
Securities Act	The Securities Act of 1933, as amended
Senior Credit Facility	NRGs senior secured credit facility, comprised of the Revolving Credit Facility and the Term Loan B Facility
Senior Notes	As of December 31, 2024, NRGs \$6.2 billion outstanding unsecured senior notes consisting of \$821 million of 5.750% senior notes due 2028, \$733 million of the 5.250% senior notes due 2029, \$500 million of the 3.375% senior notes due 2029, \$798 million of the 5.750% senior notes due 2029, \$1.0 billion of the 3.625% senior notes due 2031, \$480 million of the 3.875% senior notes due 2032, \$925 million of the 6.000% senior notes due 2033 and \$950 million of the 6.250% senior notes due 2034
Senior Secured First Lien Notes	As of December 31, 2024, NRGs \$2.6 billion outstanding Senior Secured First Lien Notes consists of \$500 million of the 2.000% Senior Secured First Lien Notes due 2025, \$900 million of the 2.450% Senior Secured First Lien Notes due 2027, \$500 million of the 4.450% Senior Secured First Lien Notes due 2029 and \$740 million of the 7.000% Senior Secured First Lien Notes due 2033
Series A Preferred Stock	As of December 31, 2024, NRGs Series A Preferred Stock consists of 650,000 outstanding shares of the 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock, with a \$1,000 liquidation preference per share
SO ₂	Sulfur Dioxide
SOFR	Secured overnight financing rate

South Central Portfolio	NRG's South Central Portfolio, which owned and operated a portfolio of generation assets consisting of Bayou Cove, Big Cajun-I, Big Cajun-II, Cottonwood and Sterlington, was sold on February 4, 2019. NRG is leasing back the Cottonwood facility through May 2025
S&P	Standard & Poor's
STP	South Texas Project — a nuclear generating facility located near Bay City, Texas in which NRG owned a 44% interest. NRG closed on the sale of its interest in STP on November 1, 2023
STPNOC	South Texas Project Nuclear Operating Company
Tax Act	The Tax Cuts and Jobs Act of 2017
TDSP	Transmission/distribution service provider
Texas Genco	Texas Genco LLC
TSR	Total Shareholder Return
TWh	Terawatt Hour
U.S.	United States of America
VaR	Value at Risk
VIE	Variable Interest Entity
Vivint LTIP	NRG Energy Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) (formerly known as the Vivint Smart Home, Inc. Long-Term Incentive Plan), assumed by NRG pursuant to merger between NRG and Vivint
Winter Storm Elliott	A major winter storm that had impacts across the majority of the United States and parts of Canada occurring in December 2022
Winter Storm Uri	A major winter and ice storm that had widespread impacts across North America occurring in February 2021

PART I

Item 1 — Business

General

NRG Energy, Inc., or NRG or the Company, is a leading energy and smart home company fueled by market-leading brands, proprietary technologies and complementary sales channels. Across the U.S. and Canada, NRG delivers innovative, sustainable solutions, predominately under brand names such as NRG, Reliant, Direct Energy, Green Mountain Energy and Vivint, while also advocating for competitive energy markets and customer choice. The Company has a customer base that includes approximately 8 million residential customers (comprised of 6 million retail energy customers and 2 million smart home customers) in addition to commercial, industrial, and wholesale customers, supported by approximately 13 GW of generation as of December 31, 2024.

NRG sold 154 TWhs of electricity and 1,833 MMDth of natural gas in 2024, making it one of the largest competitive energy retailers in the U.S. As of the end of 2024, NRG had recurring electricity and/or natural gas sales in 25 U.S. states, the District of Columbia, and 8 provinces in Canada, and Vivint Smart Home served customers in all 50 U.S. states. NRG's retail brands, collectively, have the largest share of competitively served residential electric customers in Texas and is one of the largest business-to-business providers of power and natural gas in North America, including to manufacturing, industrial, and data center facilities.

Strategy

NRG's strategy is to maximize shareholder value by being a leader in the emerging convergence of energy and smart automation in the home and business. Through a diversified supply strategy, the Company sells reliable electricity and natural gas to its customers in the markets it serves, while also providing innovative home solutions to customers. NRG's unique combination of assets and capabilities enables the Company to develop and sell highly differentiated offerings that bring together every day essential services like powering and securing the home through a seamless and integrated experience. This strategy is intended to enable the Company to optimize its unique integrated platform to delight customers, generate recurring cash flow, significantly strengthen earnings and cost competitiveness, and lower risk and volatility. Sustainability is a philosophy that underpins NRG's strategy and facilitates value creation across NRG's business.

To effectuate the Company's strategy, NRG is focused on: (i) serving the energy needs of end-use residential, commercial and industrial, and wholesale counterparties in competitive markets and optimizing on additional revenue opportunities through its multiple brands and channels; (ii) offering a variety of energy products and smart home products and services that are differentiated by innovative features, premium service, integrated platforms, sustainability and loyalty/affinity programs; (iii) excellence in operating performance of its assets; (iv) achieving the optimal mix of supply to serve its customer load requirements through a diversified supply strategy; and (v) engaging in disciplined and transparent capital allocation.

In 2024, NRG entered into a definitive partnership agreement with Renew Home, a Virtual Power Plant platform ("VPP") formed by the combination of Google's Nest Renew and OhmConnect. Leveraging Google Cloud's AI and cloud platforms, NRG and Renew Home plan to develop a VPP portfolio of up to 1 GW of load management capacity, with instantaneous dispatch value during peak events and tight supply conditions.

Business Overview

The Company's core businesses are the sale of electricity and natural gas to residential, commercial and industrial and wholesale customers, supported by the Company's wholesale electric generation, as well as the sale of smart home products and services. NRG manages its electricity and natural gas operations based on the combined results of the retail, wholesale and generation businesses with a geographical focus. Vivint Smart Home operations are reported within the Vivint Smart Home segment.

The Company's business is segmented as follows:

- Texas, which includes all activity related to customer, plant and market operations in Texas, other than Cottonwood;
- East, which includes all activity related to customer, plant and market operations in the East;
- West/Services/Other, which primarily includes the following assets and activities: (i) all activity related to customer, plant and market operations in the West and Canada, and (ii) activity related to the Cottonwood facility and other investments;
- Vivint Smart Home; and
- Corporate activities.

In Texas, the Company's generation supply is fully integrated with its retail load. This integrated model provides the advantage of being able to supply a portion of the Company's retail customers with electricity from the Company's assets, which reduces the need to sell electricity to, and buy electricity from, other institutions and intermediaries, resulting in more stable earnings and cash flows, lower transaction costs and less credit exposure. The integrated model also results in a reduction in actual and contingent collateral through offsetting transactions, thereby reducing transactions with third parties.

The integrated model consists of three core functions in each geographic segment above: Customer Operations, Market Operations and Plant Operations.

Customer Operations

Customer Operations is responsible for growing and retaining the customer base and delivering an outstanding customer experience. This includes acquisition and retention of all of NRG's residential, small commercial, commercial and industrial, and government customers. NRG employs a multi-brand strategy that leverages a wide array of sales and partnership channels, direct face-to-face sales channels, call centers, websites, and brokers. Go-to-market activities include market strategy planning and development, product innovation, offer design, campaign execution, marketing and creative services, and selling. Customer portfolio maintenance and retention activities include fulfillment, billing, payment processing, collections, customer service, issue resolution, and contract renewals. NRG provides energy and related services at either fixed, indexed or month-to-month prices. Home customers typically contract for terms ranging from one month to five years, while Business customers typically contract for terms ranging from one year to five years in length and extended contractual terms are available. Throughout all Customer Operations activities, the customer experience is kept at the forefront to inform decision-making and optimize retention, while creating supporters and advocates for NRG's brands in the market. Customer Operations primarily comprises two end-use customer facing teams: NRG Home, which serves residential customers, and NRG Business, which serves business customers.

Product Offerings

NRG sells a variety of products to residential and small commercial customers, in a wide variety of sales channels, including retail electricity and energy management, natural gas, line and surge protection products and home protection products, repair and maintenance, and carbon offsets. Home customers make purchase decisions based on a variety of factors, including price, incentive, customer service, brand, innovative offers/features and referrals from friends and family. Through its broad range of service offerings and value propositions, NRG seeks to attract, retain, and increase the value of its customer relationships. NRG's brands are recognized for exemplary customer service, innovative smart energy and environmentally-friendly solutions.

The Company provides power and natural gas to the business-to-business markets in North America, as well as retail services, including demand response, commodity sales, energy efficiency and energy management solutions to Business customers. The Company is an integrated provider of supply and distributed energy resources and focuses on distributed products as businesses seek greater reliability, cleaner power and other benefits that they cannot obtain from the grid. These solutions include system power, distributed generation, renewable and low-carbon products, carbon management and specialty services, backup generation, storage and distributed solar, demand response, and energy efficiency and advisory services.

Market Operations

Market Operations has two primary objectives: to supply energy to customers in the most cost-efficient manner and to maximize the value of the Company's assets in satisfying its customer load requirements. These objectives are intended to reduce supply costs and maximize earnings with predictable cash flows.

Power and natural gas are the two main commercial groups within Market Operations.

Power

The power commercial group is responsible for end-use electricity supply including power plant optimization and certain fuel supply. To meet the market operations objectives, NRG enters into supply, power and gas hedging agreements via a wide range of products and contracts, including (i) physical and financial commodity instruments, (ii) fuel supply and transportation contracts, (iii) PPAs and Renewable PPAs, and (iv) capacity and other contracted revenue or supply sources, as further discussed below.

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 commodity price risk.

Physical and Financial Commodity Instruments

NRG trades power, natural gas, environmental, weather and other physical and financial commodity related products, including forwards, futures, options and swaps. NRG enters into these instruments primarily to manage price and delivery risk,

optimize physical and contractual assets in the portfolio, manage working capital requirements, reduce the carbon exposure in its business and comply with laws and regulations.

Fuel Supply and Transportation Contracts

NRG's fuel requirements consist of various forms of fossil fuel. The prices of fossil fuels can be volatile. The Company obtains its fossil fuels from multiple suppliers and through multiple transporters. Although availability is generally not an issue, localized shortages, transportation availability, delays arising from extreme weather conditions and supplier financial stability issues can and do occur. The preceding factors related to the sources and availability of raw materials are fairly uniform across the Company's business and fuel products used. NRG's primary fuel requirements consist of the following:

Natural Gas — NRG operates a fleet of mid-merit and peaking natural gas plants. Fuel needs are managed by the natural gas commercial group, generally on a spot basis, as the Company does not believe it is prudent to forward purchase natural gas for these types of units as the dispatch is highly unpredictable. Natural gas storage and transportation contracts are utilized to reduce daily volatility.

Coal — NRG actively manages its coal requirements based on forecasted generation, market volatility and its inventory on site. The Company believes it is adequately hedged, using forward coal supply agreements, for its domestic coal consumption for 2025. As of December 31, 2024, NRG had purchased forward contracts to provide fuel for the Company's expected requirements for 2025. For the domestic fleet, NRG purchased approximately 13 million tons of coal in 2024, all of which was Powder River Basin coal. For fuel transport, NRG has entered into various rail transportation and rail car lease agreements with varying tenures, which will provide for the Company's transportation requirements of Powder River Basin coal for the next four years.

Renewable PPAs

The Company's strategy is to procure mid to long-term renewable generation through power purchase agreements. NRG has entered into Renewable PPAs totaling approximately 1.9 GW with third-party project developers and other counterparties, of which all are operational as of December 31, 2024. The remaining average tenure of these agreements is nine years. The Company expects to continue evaluating and executing similar agreements that support the needs of the business. The total GW entered into through Renewable PPAs may be impacted by contract terminations when they occur.

Capacity and Other Contracted Revenue or Supply Sources

NRG's revenues and/or cash flows, primarily in the East and West, benefit from capacity/demand payments and other contracted revenue sources, originating from market clearing capacity prices, tolling arrangements and other long-term contractual arrangements.

Natural Gas

The natural gas commercial group is responsible for costing, logistics and supply for all of NRG's residential, commercial and industrial, and wholesale customers. NRG has contractual rights to natural gas transportation and storage assets across its footprint that allow for optimal supply economics in support of its various businesses. NRG's diversified load coupled with this asset portfolio enables the Company to deliver supply economically while providing incremental optimization activities when market conditions allow. The scale of the natural gas operation extends from the wellhead (through its producer services business) to end use customers (through NRG's various sales channels). This scale, coupled with the Company's associated assets, gas system platform and people, create significant value across North America.

Plant Operations

As of December 31, 2024, the Company owns and leases a diversified wholesale generation portfolio with approximately 13 GW of fossil fuel, and renewable generation capacity at 18 plants. The Company's wholesale generation assets are diversified by fuel-type and dispatch level, which helps mitigate the risks associated with fuel price volatility and market demand cycles. NRG continually evaluates its generation portfolio to focus on asset optimization opportunities and the locational value of its generation assets in each of the markets where the Company participates, as well as opportunities for the development of new generation.

The following table summarizes NRG's generation portfolio as of December 31, 2024:

Type	(In MW) ^(a)			
	Texas	East	West/Services/Other ^(b)	Total
Natural gas	4,353	80	1,252	5,685
Coal	4,174	1,948	605	6,727
Oil	—	455	—	455
Utility Scale Solar	—	—	214	214
Total generation capacity	8,527	2,483	2,071	13,081

(a) Utility Scale Solar is 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 interest

(b) Includes proportionate share of equity owned investments and the Cottonwood lease

Plant Operations is responsible for operating the Company's generation facilities at high standards of safety and regulatory compliance, and includes (i) operations and maintenance, (ii) asset management, and (iii) development, engineering and construction.

Operations & Maintenance

NRG operates and maintains its generation portfolio, as well as approximately 6,200 MW of additional coal, natural gas and wind generation capacity at 13 plants operated on behalf of third parties as of December 31, 2024 using prudent industry practices for the safe, reliable and economic generation of electricity in compliance with all local, state and federal requirements. The Company follows a consistent set of operating requirements, including a solid base of training, required adherence to specific safety and environmental limits, procedure and checklist usage, and the implementation of continuous process improvement through incident investigations.

NRG uses industry leading maintenance practices for preventive, predictive and corrective maintenance planning. The Company's strategic planning process evaluates equipment condition, performance, and obsolescence to support the development of a comprehensive work scope and schedule for long-term performance.

Asset Management

NRG manages all aspects of its generation portfolio to optimize the lifecycle value of the assets, consistent with the Company's goals. The Company evaluates capital projects required for continued operation and strategic enhancement of the assets, provides quality assurance on capital outlays, and assesses the impact of rules, regulations, and laws on business profitability. In addition, the Company manages its long-term contracts and real estate holdings and provides management services.

Development, Engineering & Construction

NRG develops, engineers and executes major plant projects as well as "new build" generation and energy storage projects that enhance the value of its generation portfolio and provide options to meet generation growth needs in the retail markets it serves, in accordance with the Company's strategic goals. These projects have included gas-fired generation development and construction, coal to gas conversions, grid scale energy storage development, grid scale renewable construction, and asset demolition, remediation and reclamation work.

Texas Development Priorities — During 2024, NRG advanced progress on three new generation projects aimed at expanding its operational capacity to meet growing retail power supply needs in the ERCOT wholesale electric market. These projects include a new 415 MW peaker plant at its T.H. Wharton generating station in Texas, which is scheduled to be operational in 2026 and a new 689 MW combined cycle generating facility at its Cedar Bayou generating station in Texas, which is scheduled to be operational in 2028. Both projects are under consideration for financing from the Texas Energy Fund. NRG continues to explore its options for the 443 MW Greens Bayou 6 project. These additions to NRG's portfolio are strategically aligned with the Company's commitment to meeting the growing energy needs of its customers.

Vivint Smart Home

Vivint Smart Home is a leading smart home platform that provides customers with technology, products and services to create a smarter, greener, safer home. A smart home has multiple devices integrated into a single expandable platform that incorporates artificial intelligence ("AI") and machine-learning in its operating system, which allows customers to interact with and manage their home from anywhere via the Vivint app on their smart device. Vivint Smart Home provides a customized

solution for the home using integrated smart cameras (indoor, outdoor and doorbell), locks, lights, thermostats, garage door controls and a host of other safety and security sensors.

Vivint Smart Home provides a fully integrated solution for consumers, including hardware, software, sales, installation by trained and experienced in-home service professionals, customer service, technical support and professional monitoring. This seamless integration of high-quality products and services resulted in an average customer lifetime of approximately nine years as of December 31, 2024. The Company believes its ability to offer related or adjacent products and services that leverage the existing smart home platform, as well as energy services, can extend the average customer lifetime and increase the lifetime value of customers. As of December 31, 2024, Vivint Smart Home's cloud-based home platform currently manages more than 33 million in-home devices, and the average customer on Vivint Smart Home's cloud-based home platform engages with the smart home app approximately 17 times per day and has approximately 16 devices in its home.

Operational Statistics

The following statistics represent the Company's retail load and customer count:

	Year ended December 31,		
	2024	2023	2022
Sales volumes - Electricity (in GWh)			
Home - Texas	39,353	40,032	43,155
Home - East	15,229	12,838	13,269
Home - West/Services/Other	2,355	2,243	2,250
Business - Texas	40,274	40,250	38,447
Business - East	46,724	46,438	47,724
Business - West/Services/Other	10,513	10,393	10,231
Total Load	154,448	152,194	155,076
Sales volumes - Natural gas (in MWh)			
Home - East	49,927	49,990	53,051
Home - West/Services/Other	75,898	75,150	92,035
Business - East	1,525,094	1,587,052	1,618,946
Business - West/Services/Other	181,972	179,888	154,074
Total Load	1,832,891	1,892,080	1,918,106

		Year ended December 31,		
		2024	2023	2022
Customer count - Electricity customers^{(a)(b)} (in thousands)				
Home - Texas				
Average retail		2,940	2,878	2,961
Ending retail		2,909	2,928	2,859
Home - East				
Average retail		1,777	1,466	1,408
Ending retail		1,807	1,752	1,381
Home - West/Services/Other				
Average retail		395	393	383
Ending retail		373	404	390
Customer count - Natural gas customers^(b) (in thousands)				
Home - East				
Average retail		388	390	375
Ending retail		384	385	380
Home - West/Services/Other				
Average retail		353	381	416
Ending retail		347	358	396
Total Customer count (in thousands)				
Average retail - Home - Electricity and Natural gas		5,853	5,508	5,543
Average - Vivint Smart Home ^(c)		2,100	2,008	—
Ending retail - Home - Electricity and Natural gas		5,820	5,827	5,406
Ending - Vivint Smart Home ^(c)		2,154	2,043	—
Total Ending retail and Vivint Smart Home		7,974	7,870	5,406

(a) Home customer count includes recurring residential customers, services customers, and community choice

(b) Dual fuel customers are included within electricity customer counts only

(c) Vivint Smart Home includes customers that also purchase other NRG products

The tables below present these performance metrics for the Company's generation portfolio, including leased facilities, for the years ended December 31, 2024 and 2023:

Year Ended December 31, 2024						
	Net Owned Capacity (MW)	Net Generation (In thousands of MWh) ^(a)	Fossil Plants ^(a)			
			Annual Equivalent Availability Factor	Average Net Heat Rate BTU/kWh	Net Capacity Factor	
Texas	8,527	23,350	70.8 %	11,337	30.1 %	
East	2,483	2,372	78.4 %	13,956	10.9 %	
West/Services/Other	1,143	5,977	70.2 %	7,498	57.6 %	

(a) Excludes equity method investments

Year Ended December 31, 2023						
	Net Owned Capacity (MW)	Net Generation (In thousands of MWh) ^(a)	Fossil and Nuclear Plants ^(a)			
			Annual Equivalent Availability Factor	Average Net Heat Rate BTU/kWh	Net Capacity Factor	
Texas	8,529	30,776	74.2 %	11,175	35.4 %	
East	2,483	2,016	85.5 %	13,007	6.6 %	
West/Services/Other	1,169	5,903	73.5 %	7,449	56.8 %	

(a) Excludes equity method investments

The following are industry statistics for the Company's fossil and nuclear plants, as defined by the NERC:

Annual Equivalent Availability Factor, or EAF — Measures the percentage of maximum generation available over time as the fraction of net maximum generation that could be provided over a defined period of time after all types of outages and deratings, including seasonal deratings, are taken into account.

Net Heat Rate — The net heat rate represents the total amount of fuel in BTU required to generate one net kWh provided.

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 by the station.

The generation performance by region for the three years ended December 31, 2024, 2023 and 2022 is shown below:

(In thousands of MWh)	Net Generation		
	2024	2023	2022
Texas			
Coal	15,433	15,576	18,860
Gas	7,917	7,333	8,763
Nuclear ^(a)	—	7,867	9,652
Total Texas	23,350	30,776	37,275
East			
Coal	2,369	1,328	6,738
Oil	2	3	7
Gas	1	685	537
Total East	2,372	2,016	7,282
West/Services/Other			
Gas	5,974	5,899	6,669
Renewables	3	4	7
Total West/Services/Other	5,977	5,903	6,676
Total generation performance	31,699	38,695	51,233

(a) Reflects the Company's undivided interest in total MWh generated by STP. The Company sold its interest in STP on November 1, 2023

Competition

While there has been consolidation in the competitive retail energy space over the past few years, there is still considerable competition for customers. In Texas, there is healthy competition in deregulated areas and customers can choose providers based on the most appealing offers. Outside of Texas, electricity retailers compete with the incumbent utilities, in addition to other retail electric providers, which can inhibit competition depending on the market rules of the state. There is a high degree of fragmentation, with both large and small competitors offering a range of value propositions, including value, rewards, and sustainability-based offerings.

Wholesale generation is highly fragmented and diverse in terms of industry structure by region. As such, there is wide variation in the capabilities, resources, nature and identities of the Company's competitors 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.

The smart home market is an expanding global opportunity and is in the early stages of broad consumer adoption. It is highly competitive and fragmented. Major competitors range from large-cap technology companies seeking to expand their core market opportunity who predominantly offer do-it-yourself devices that put a large burden on homeowners to self-install and support many devices, to security-based providers, as well as industrial and telecommunications companies that offer connected home experiences. Vivint Smart Home provides the full smart home experience, with an end-to-end solution that includes a wide range of unique capabilities and use cases. Currently, the vast majority of competitors do not offer comprehensive smart home solutions and accompanying services.

Seasonality and Price Volatility

The sale of power and natural gas to retail customers are seasonal businesses with the demand for power generally peaking during the summer, and the demand for natural gas generally peaking during the winter. As a result, net working capital requirements for the Company's retail operations generally increase during summer and winter months along with the

higher revenues, and then decline during off-peak months. Weather may impact operating results and extreme weather conditions could have a material impact. The rates charged to retail customers may be impacted by fluctuations in total power prices and market dynamics, such as the price of natural gas, transmission constraints, competitor actions, and changes in market heat rates.

Annual and quarterly operating results of the Company's generation portfolio can be significantly affected by weather and energy commodity price volatility. Significant other events, such as the demand for natural gas, interruptions in fuel supply infrastructure and relative levels of hydroelectric capacity can increase seasonal fuel and power price volatility. The preceding factors related to seasonality and price volatility are fairly uniform across the regions in which the Company operates.

Market Framework

NRG sells electricity, natural gas and related products and services, and smart home products and services to customers throughout the U.S. and Canada. In most of the states and regions that have introduced retail consumer choice, NRG competitively offers electricity, natural gas and other value-enhancing services to customers. Each retail consumer choice state or province establishes its own retail competition laws and regulations, and the specific operational, licensing, and compliance requirements vary by state or province. Regulated terms and conditions of default service, as well as any movement to replace default service with competitive services, as is done in ERCOT, can affect customer participation in retail competition. In Canada, NRG sells energy and related services to residential and commercial customers in the province of Alberta pursuant both to a regulated rate service governed by provincial regulations as well as a competitive service with rates set by market forces. Sales of energy to commercial customers take place in other provinces as well. The attractiveness of NRG's retail offerings may be impacted by the rules, regulations, market structure and communication requirements from public utility commissions in each state and province.

NRG's fleet of power plants which it owns, operates or manages are located in organized energy markets, known as RTOs or ISOs. Each organized market administers day-ahead and real-time centralized bid-based energy and ancillary services markets pursuant to tariffs approved by FERC, or in the case of ERCOT, market rules approved by the PUCT. These tariffs and rules dictate how the energy markets operate, how market participants make bilateral sales with one another and how entities with market-based rates are compensated. Established prices reflect the value of energy at the specific location and time it is delivered, which is known as the Locational Marginal Price. Each market is subject to market mitigation measures designed to limit the exercise of locational market power. These market structures facilitate NRG's sale of power and capacity products at market-based rates.

Other than ERCOT and AESO, each of the ISO regions also operates a capacity or resource adequacy market that provides an opportunity for generating and demand response resources to earn revenues to offset their fixed costs that are not recovered in the energy and ancillary services markets. The ISOs are also responsible for transmission planning and operations.

Texas

NRG's business in Texas is subject to standards and regulations adopted by the PUCT and ERCOT¹, including the requirement for retailers to be certified by the PUCT in order to contract with end-users to sell electricity. The ERCOT market is one of the nation's largest and, historically, fastest growing power markets. ERCOT is an energy-only market. The majority of the retail load in the ERCOT market region is served by competitive retail suppliers, except certain areas that have not opted into competitive consumer choice and are served by municipal utilities and electric cooperatives.

East

While most of the states in the East region of the U.S. have introduced some level of retail consumer choice for electricity and/or natural gas, the incumbent utilities currently provide default service in most of the states and as a result typically serve the majority of residential customers. NRG's retail activities in the East include both direct sales to end-use customers as well as sales through municipal aggregations, both of which are subject to standards and regulations adopted by the ISOs, state public utility commissions and legislators, including the requirement for retailers to be certified in each state in order to contract with end-users to sell electricity.

Power plants owned, operated or managed by NRG and NRG's demand response assets located in the East region of the U.S. are within the control areas of PJM, NYISO, ISO-NE and MISO. Each of the market regions in the East region provides for robust competition in the day-ahead and real-time energy and ancillary services markets. Additionally, the assets in the East region receive a significant portion of their revenues from capacity markets. PJM and ISO-NE use a forward capacity auction, while NYISO uses a month-ahead capacity auction. MISO has an annual auction. Capacity market prices are sensitive to design parameters, as well as additions of new capacity. PJM and ISO-NE operate a pay-for-performance model where capacity payments are modified based on real-time generator performance during certain system conditions. In such markets, NRG's actual capacity revenues will be the combination of cleared auction prices times the quantity of MW cleared, plus the net of any

¹ The Cottonwood facility is located in Deweyville, Texas, but operates in the MISO market

over-performance "bonus payments" and any under-performance charges. Additionally, bidding rules allow for the incorporation of a risk premium into generator bids.

West

In the West region of the U.S., NRG is an LSE and sells electricity at retail in California's Direct Access marketplace, as well as through community choice aggregations in the state. Additionally, NRG sells natural gas as both a retail supplier and wholesaler principally in California. NRG also owns equity interests in, operates, or manages power plants located entirely within the CAISO footprint. The CAISO operates day-ahead and real-time locational markets for energy and ancillary services, while managing congestion primarily through nodal prices. The CAISO system facilitates NRG's sale and purchase of power, ancillary services and capacity products at market-based rates, either within the CAISO's centralized energy and ancillary service markets or bilaterally. The CPUC also determines capacity requirements for LSEs and for specified local areas utilizing inputs from the CAISO. Both the CAISO and CPUC rules require LSEs to contract with sufficient generation resources in order to maintain minimum levels of generation within defined local areas. Additionally, the CAISO has independent authority to contract with needed resources under certain circumstances, typically either when LSEs have failed to procure sufficient resources, or system conditions change unexpectedly.

Canada

In Canada, NRG sells to residential and commercial retail customers in Alberta, within the AESO footprint, under both regulated rates approved by the AUC as well as through competitive service. The Company's regulated rates are approved through periodic rate applications that establish rates for power and gas sales as well as for recovery of other costs associated with operating the regulated business. In addition, the Company sells energy to commercial customers in other provinces. All sales and operations are subject to applicable federal and provincial laws and regulations.

Vivint Smart Home

Vivint Smart Home operates in all states throughout the U.S. that regulate in some manner the sale, installation, servicing, monitoring or maintenance of smart home and electronic security systems. Vivint Smart Home and its sales representatives are typically required to obtain and maintain licenses, certifications or similar permits from governmental entities as a condition to engaging in the smart home and security service business. Vivint Smart Home is subject to federal and state laws related to consumer financing which may include rules related to fees and charges, disclosures and regulation of the party extending consumer credit.

Energy Regulatory Matters

As participants in wholesale and retail energy markets and owners and operators of power plants, certain NRG entities are subject to regulation by various federal and state government agencies. These include the CFTC, FERC, NRC and the PUCT, as well as other public utility commissions in certain states where NRG's generation or distributed generation assets are located. In addition, NRG is subject to the market rules, procedures and protocols of the various ISO and RTO markets in which it participates. Likewise, certain NRG entities participating in the retail markets are subject to rules and regulations established by the states and provinces in which NRG entities are licensed to sell at retail. NRG must also comply with the mandatory reliability requirements imposed by NERC and the regional reliability entities in the regions where NRG operates.

NRG'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 the PUCT.

State and Provincial Energy Regulation

Maryland Legislation — On May 9, 2024, Maryland Governor Wes Moore signed Senate Bill 1 into law, which restricts the competitive retail electric and natural gas market in Maryland, affecting residential customers but not commercial and industrial customers. Key provisions of the law took effect on January 1, 2025. The legislation imposes a price cap on residential contracts tied to a trailing 12-month historical average of utility rates, with only a limited exception for renewable power products. Renewable products must now have their price pre-approved by the Maryland Public Service Commission and source their renewable electricity certificates from within the PJM region. The law also requires that any variable-price contract not contain a change in price more than once a year, except time-of-use contracts, and limits contract terms to 12 months. It requires affirmative consent for the renewal of customer contracts for renewable power products. The law also imposes licensing requirements on energy salespeople. The law states that it does not impair existing contracts. On October 1, 2024, Green Mountain Energy Company, NRG's renewable electricity provider, along with a retail trade association to which NRG belongs, filed a lawsuit in federal court challenging the constitutionality of Senate Bill 1. On November 18, 2024, the trial court denied the plaintiffs' motion for a preliminary injunction. The plaintiffs, including Green Mountain, have filed an appeal to this denial to the Fourth Circuit Court of Appeals. The appeal is pending.

Alberta Rate of Last Resort — On September 27, 2024, the government of Alberta legislative assembly adopted the Rate of Last Resort Regulation to transition the regulated electricity rate from a monthly, variable rate “Regulated Rate Option” to a two-year, fixed rate “Rate of Last Resort” effective January 1, 2025. On November 29, 2024, the Alberta Utilities Commission approved a negotiated settlement between Direct Energy Regulated Services and the Utilities Consumer Advocate to establish the Rate of Last Resort price-setting methodology as well as the rate itself for the first two years of the four-year period. Under the government’s regulation, customers may return to the Rate of Last Resort at any time, and the price for the second two-year term may only vary from the first two-year term by 10%. The new rates may provide risks and benefits to the Company.

Regional Regulatory Developments

NRG is affected by rule/tariff changes that occur in the ISO regions. For further discussion on regulatory developments, see Item 15 — Note 23, *Regulatory Matters*, to the Consolidated Financial Statements.

ERCOT/PUCT

Public Utility Commission of Texas’ Actions with Respect to Wholesale Pricing and Market Design — The PUCT continues to analyze and implement multiple options for promoting increased reliability in the wholesale electric market, including the adoption of a reliability standard for resource adequacy and market-based mechanisms to achieve this standard. The Commission adopted a reliability standard that became effective in September 2024.

In 2023, the Texas Legislature authorized implementation of the Performance Credit Mechanism (“PCM”), which will measure real-time contribution to system reliability and provide compensation for resources to be available, subject to certain “guardrails” such as an absolute annual net cost cap, as part of its adoption of the PUCT Sunset Bill (House Bill 1500). The Texas Legislature also directed the PUCT to implement additional market design changes such as the creation of a new ancillary service called Dispatchable Reliability Reserve Service (“DRRS”) to further increase ERCOT’s capability to manage net load variability and firming requirements for new generation resources which penalize poor performance during periods of low grid reserves. The PUCT directed ERCOT to implement DRRS as a standalone product which will delay implementation until 2026 or 2027.

Texas Energy Fund — Through Senate Bill 2627, the Texas Legislature created the Texas Energy Fund, which received voter approval in November 2023, and will provide grants and low-interest loans (3%) to incentivize the development of more dispatchable generation and smaller backup generation in ERCOT. The PUCT adopted a rule in March 2024, which establishes the application and participation requirements and the process by which the Texas Energy Fund loan proceeds for dispatchable generation in ERCOT will be distributed. The initial window for submitting loan applications was opened on June 1, 2024 and closed on July 27, 2024. NRG, through its subsidiaries, filed for loan proceeds for three separate projects, totaling more than 1,500 MWs of capacity. The PUCT also adopted a rule for the completion bonus grant program in April 2024, which provides for opportunities for grants of \$120,000 per MW for dispatchable generation projects interconnected before June 1, 2026, or \$80,000 per MW for dispatchable generation projects interconnected on or after June 1, 2026 but before June 1, 2029, subject to performance requirements. Applications for completion bonus grants can be submitted beginning in January 2025. Availability of grant funds may be impacted by the 10,000 MW collective cap on the ERCOT loan and grant program.

On August 29, 2024, the PUCT approved an initial portfolio of projects to move into a due diligence process with its third-party administrator. NRG THW GT LLCs 415 MW gas peakers, which is projected to become commercially operational in 2026, was among the projects selected to move into diligence, and that process is underway. On December 12, 2024, the PUCT approved two additional projects to move into due diligence, including Cedar Bayou Unit 5’s 689 MW combined cycle generating facility, which is projected to become commercially operational in 2028. Approximately 9,700 MW of projects are currently approved to undergo due diligence.

Real-time Co-optimization of Energy and Ancillary Services (“RTC”) — ERCOT is progressing with a multi-year project to upgrade its systems to co-optimize the dispatch of energy and ancillary services in real-time. The RTC project will also replace the Operating Reserve Demand Curve with demand curves for each ancillary service product which will act as the primary scarcity pricing mechanism when energy or ancillary services are in shortage. ERCOT anticipates commencing market trials for testing the RTC project in Spring 2025 with production to go-live on December 5, 2025.

Supreme Court of Texas Ruling on Pricing during Winter Storm Uri — On June 14, 2024, the Supreme Court of Texas affirmed the validity of two orders issued by the PUCT on February 15 and 16, 2021, respectively, governing scarcity pricing in the ERCOT wholesale electricity market during Winter Storm Uri. The Supreme Court’s order reversed the judgment of the Third Court of Appeals, which had held that the PUCT exceeded its statutory authority by ordering the market price of energy to be set at the high system wide offer cap due to scarcity conditions as a result of firm load shed occurring in ERCOT. In addition to holding that the PUCT’s orders were consistent with the agency’s statutory authority, the Supreme Court of Texas found that the PUCT had substantially complied with the Administrative Procedure Act’s procedural rulemaking requirements in issuing its orders.

Voluntary Mitigation Plan ("VMP") Changes — On March 13, 2023, the PUCT Staff determined that a portion of NRG's VMP should be terminated due to the increase in procurement of ancillary services by ERCOT, specifically non-spin reserve services, following Winter Storm Uri. As such, PUCT Staff terminated part of the VMP for NRG which provides protection from wholesale market power abuse accusations related to offers for ancillary services. NRG agreed with these changes to the VMP. At the March 23, 2023 open meeting, the PUCT approved the amended VMP. In February 2024, NRG filed a notice of intent with the PUCT and terminated its existing VMP as of March 1, 2024.

Lubbock, Texas Transition to Competition — The customers of Lubbock Power and Light ("LP&L"), a municipally owned utility, entered the Texas retail competitive market in March 2024. Starting in January 2024, LP&L customers were able to shop for a REP. Customers who did not select a REP by February 15, 2024 were assigned to one of three default REPs, one of which is Reliant. LP&L customers started transitioning to their chosen REP or a default REP on March 4, 2024, which concluded in early April 2024.

PJM

Capacity Market Litigation and Reforms — On September 27, 2024, various public interest organizations filed a complaint at FERC against PJM seeking changes to the treatment of RMRs in the capacity market. On November 18, 2024, various state consumer advocates filed a complaint at FERC against PJM seeking revisions to several aspects of PJM's capacity market, including requiring resources previously subject to categorical exemptions to participate in capacity auctions, longer notice periods for deactivating generating resources, and several other changes. On December 9, 2024, PJM submitted a filing at FERC proposing various capacity market updates regarding the treatment of qualifying resources that are retained under RMR agreements as capacity, retention of a dual-fuel fired combustion turbine plant as the reference resource, and updates to the Non-Performance Charge based on the RTO Net CONE for the 2026/2027 and 2027/2028 Delivery Years. On February 14, 2025, FERC approved PJM's filings. On December 13, 2024, PJM filed tariff changes to add provisions enabling a one-time reliability-based expansion of the eligibility criteria for PJM's interconnection process intended to allow a limited number of additional resources to participate in an upcoming interconnection queue. On February 11, 2025, FERC approved PJM's filing. On December 20, 2024, PJM submitted tariff changes that propose to require all Existing Generation Capacity Resources to offer into the capacity auctions beginning with the 2026/2027 Delivery Year as well as certain enhancements to the Market Seller Offer Cap. On February 20, 2025, FERC approved PJM's filing. On December 30, 2024, Pennsylvania Governor Josh Shapiro and the Commonwealth of Pennsylvania filed a complaint at FERC alleging that PJM's demand curve cap is unjust and unreasonable. The complaint seeks to lower the demand curve cap to be 1.5 times net CONE of the reference resource. On January 28, 2025, PJM notified stakeholders that it had reached an agreement with Governor Shapiro, and on February 14, 2025, PJM and Governor Shapiro filed a joint settlement agreement establishing the capacity market temporary price cap and price floor for the next two auctions and also filed a motion to dismiss the December 30, 2024 complaint. Any changes approved by FERC could affect future capacity prices.

Revisions to PJM Locational Deliverability Area ("LDA") Reliability Requirement — The Base Residual Auction ("BRA") for the 2024/2025 delivery year commenced on December 7, 2022 and closed on December 13, 2022. On December 19, 2022, PJM announced that it would delay the publication of the auction results. On December 23, 2022, PJM made a filing at FERC to revise the definition of LDA Reliability Requirement in the Tariff. This would allow PJM to exclude certain resources from the calculation of the LDA Reliability Requirement. On February 21, 2023, FERC accepted PJM's filing. Multiple parties, including NRG, filed for rehearing. Rehearing was denied by operation of law, and multiple parties, including the Company, filed appeals to the Third Circuit Court of Appeals. On March 12, 2024, the court vacated the portion of the FERC orders that allow PJM to apply the LDA Reliability Requirement to the 2024/2025 capacity auction. On March 29, 2024, PJM filed a petition seeking confirmation as to the capacity commitments rules for the 2024/2025 auction. On April 22, 2024, multiple parties filed a complaint seeking to find the revised rate unjust and unreasonable and implement rates consistent with FERC's February 2023 decision, which was denied on July 9, 2024. Those parties filed an appeal to the Court of Appeals for the D.C. Circuit on November 5, 2024.

On May 6, 2024, FERC directed PJM to recalculate the 2024/2025 auction results under the Initial LDA Reliability Requirement rules, and further directed PJM to rerun the Third Incremental Auction. PJM published the revised BRA and Third Incremental Auction results on May 8, 2024 and May 23, 2024, respectively. On June 14, 2024, multiple parties filed appeals to the Third Circuit Court of Appeals seeking review of the May 6, 2024 FERC orders approving PJM's petition to restore the original capacity commitment rules for PJM to recalculate the 2024/2025 BRA and the rerun of the 2024/2025 BRA. As a result, the capacity for the 2024/2025 delivery year in the Delmarva Power and Light South zone resulted in higher prices. This outcome may change depending upon the disposition of the outstanding complaint and appeals.

PJM Base Residual Auction Revisions and Delay — On October 13, 2023, PJM made two filings at FERC. In the first filing, PJM proposed revisions to the Market Seller Offer Cap, which FERC rejected on February 6, 2024. The second filing proposed to make changes to PJM's resource adequacy risk modeling and capacity accreditation processes, which FERC approved, with condition, on January 20, 2024. The approved changes were in effect for the 2025/2026 BRA that occurred in July 2024. In November 2024, at PJM's request, FERC approved delays to future BRAs. The 2026/2027 BRA is currently scheduled for July 2025.

Indian River RMR Proceeding — On June 29, 2021, Indian River notified PJM that it intended to retire Unit 4, effective May 31, 2022, due to expected uneconomic operations. On July 30, 2021, PJM responded to the deactivation notice and stated that PJM had identified reliability violations resulting from the proposed deactivation of Unit 4. NRG filed a cost based RMR rate schedule at FERC on April 1, 2022. FERC accepted the rate schedule with a June 1, 2022 effective date, subject to refund and established hearing and settlement procedures. The Company reached settlement with a number of the intervening parties and the settlement agreement was filed at FERC on April 2, 2024. On January 16, 2025, FERC issued an order approving the settlement agreement. On February 14, 2025, the Independent Market Monitor and the Maryland Office of the People's Counsel filed a request for a rehearing of the January 16, 2025 FERC order. PJM announced the Delmarva Power transmission upgrades were completed in December 2024 and as a result, PJM sent NRG a termination notice. Indian River Unit 4 retired on February 23, 2025.

Independent Market Monitor Market Seller Offer Cap Complaint — On March 18, 2021, finding that the calculation of the default Market Seller Offer Cap was unjust and unreasonable, FERC issued an order, which permitted the PJM May 2021 capacity auction for the 2022/2023 delivery year to continue under the existing rules and set a procedural schedule for parties to file briefs with possible solutions. On September 2, 2021, FERC issued an order in response to a complaint filed by the PJM Independent Market Monitor's proposal, which eliminated the Cost of New Entry-based Market Seller Offer Cap, implemented a limited default cap for certain asset classes based on going-forward costs and provided for unit specific cost review by the Independent Market Monitor for all other non-zero offers into the auctions. On October 4, 2021, as required by the Order, PJM submitted its compliance tariff and certain parties filed a motion for rehearing, which was denied by operation of law. On February 18, 2022, FERC addressed the arguments raised on rehearing and rejected the rehearing requests. Multiple parties filed appeals at the Court of Appeals for the D.C. Circuit, and on August 15, 2023, the Court denied the petitions for review. On January 12, 2024, the generator trade association filed a petition for review with the U.S. Supreme Court to overturn the August 15, 2023 judgment. On May 28, 2024, the U.S. Supreme Court denied the petition for review.

Final Rule on Reactive Power Payments — On October 17, 2024, FERC issued its final rule on reactive power, eliminating compensation for a generator's reactive power within the standard power factor. ISOs must make a compliance filing, but FERC will permit ISO-NE, NYISO, and PJM to request a later effective date. This change affects the payments provided to generators providing reactive power service.

Change to Energy Efficiency in the PJM Capacity Auction — On November 5, 2024, FERC approved PJM's proposal to terminate compensation paid through the PJM capacity market to energy efficiency resources beginning in the 2026/2027 auction year. However, energy efficiency resources will be counted as a reduction in the PJM load forecast that is the basis of the PJM capacity auction. FERC's action will eliminate wholesale market financial support for utility-run programs authorized by state utility commissions, as well as certain third-party providers of energy efficiency services. NRG's demand-side programming is not significantly affected by the modification.

Other Regulatory Matters

From time to time, NRG entities may be subject to examinations, investigations and/or enforcement actions by federal, state and provincial licensing and regulatory agencies and may face the risk of penalties for violation of financial services, consumer protection and other applicable laws and regulations.

Environmental Regulatory Matters

NRG is subject to numerous environmental laws in the development, construction, ownership and operation of power plants. These laws generally require that governmental permits and approvals be obtained before construction and maintained during operation of power plants. Federal and state environmental laws generally have become more stringent over time. Future laws may require the addition of emissions controls or other environmental controls, impose restrictions on the Company's operations including unit retirements or impose obligations related to historic coal ash use, storage and disposal. Complying with environmental laws often involves specialized human resources and significant capital and operating expenses, as well as occasionally curtailing operations. NRG decides to invest capital for environmental controls based on the relative certainty of the requirements, an evaluation of compliance options and the expected economic returns on capital.

Several regulations that affect the Company have been and continue to be revised by the EPA, including requirements regarding coal ash, GHG emissions, NAAQS revisions and implementation, and effluent limitation guidelines. NRG will evaluate the impact of these regulations as they are revised but cannot fully predict the impact of each until anticipated revisions, legal challenges and reconsiderations are resolved.

Air

The CAA and related regulations (as well as similar state and local requirements) have the potential to affect air emissions, operating practices and pollution control equipment required at power plants. Under the CAA, the EPA sets NAAQS for certain pollutants including SO₂, ozone, and PM_{2.5}. Many of the Company's facilities are located in or near areas that are classified by the EPA as not achieving certain NAAQS (non-attainment areas). The relevant NAAQS may become more stringent. In March 2024, the EPA increased the stringency of the PM_{2.5} NAAQS. The Company maintains a comprehensive compliance strategy to address continuing and new requirements. Complying with increasingly stringent air regulations could require the installation of additional emissions control equipment at some NRG facilities or retiring of units if installing such controls is not economic. Significant changes to air regulatory programs affecting the Company are described below.

CPP/ACE Rules — The attention in recent years on GHG emissions has resulted in federal and state regulations. In 2019, the EPA promulgated the ACE rule, which rescinded the CPP, which had sought to broadly regulate CO₂ emissions from the power sector. On January 19, 2021, the D.C. Circuit vacated the ACE rule (but on February 22, 2021, at the EPA's request, stayed the issuance of the portion of the mandate that would vacate the repeal of the CPP). On June 30, 2022, the U.S. Supreme Court held that the "generation shifting" approach in the CPP exceeded the powers granted to the EPA by Congress. The Court did not address the related issues of whether the EPA may adopt only measures applied at each source. On May 9, 2024, the EPA promulgated a rule that repealed the ACE rule and significantly revised the manner in which new combustion-turbine and existing steam EGU's GHG emissions will be regulated including capturing and storing/sequestering CO₂ in some instances. This rule has been challenged by numerous parties in the D.C. Circuit including 27 states with 22 states intervening in support of the rule. The DC Circuit held oral arguments related to this rule in December 2024. On February 5, 2025, the DOJ filed a motion asking the court to hold proceedings in abeyance while the new administration evaluates the rule. The court granted the motion on February 19, 2025.

Cross-State Air Pollution Rule ("CSAPR") — On March 15, 2023, the EPA signed and released a prepublication of a final rule that sought to significantly revise the CSAPR to address the good-neighbor obligations of the 2015 ozone NAAQS for 23 states after earlier having disapproved numerous state plans to address the issue. Several states, including Texas, challenged the EPA's disapproval of their state plans. On May 1, 2023, the U.S. Court of Appeals for the Fifth Circuit stayed the EPA's disapproval of Texas' and Louisiana's state plans, which disapprovals are a condition precedent to the EPA imposing its plan on Texas and Louisiana. Several other states are also similarly situated because of similar stays. Nonetheless, on June 5, 2023, the EPA promulgated this rule. On July 31, 2023, the EPA promulgated an interim final rule that addresses the various judicial orders that have stayed several State-Implementation-Plan disapprovals by limiting the effectiveness of certain requirements of the final rule promulgated on June 5, 2023 in Texas and several other states. On June 27, 2024, the U.S. Supreme Court stayed the final rule in the 11 states where the rule had not already been stayed. The Company cannot predict the outcome of the legal challenges to the: (i) various state disapprovals; (ii) the final rule promulgated on June 5, 2023; and (iii) the interim final rule promulgated on July 31, 2023 that seeks to address the judicial orders. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Regional Haze Proposal — On May 2023, the EPA proposed to withdraw the existing Texas Sulfur Dioxide Trading Program and replace it with unit-specific SO₂ limits for 12 units in Texas to address requirements to improve visibility at National Parks and Wilderness areas. If finalized as proposed, the rule would result in more stringent SO₂ limits for two of the Company's coal-fired units in Texas. The Company cannot predict the outcome of this proposal.

Greenhouse Gas Emissions — NRG emits CO₂ when generating electricity at its facilities. Nearly all of NRG's domestic GHG emissions are subject to federal (U.S. EPA) GHG reporting requirements.

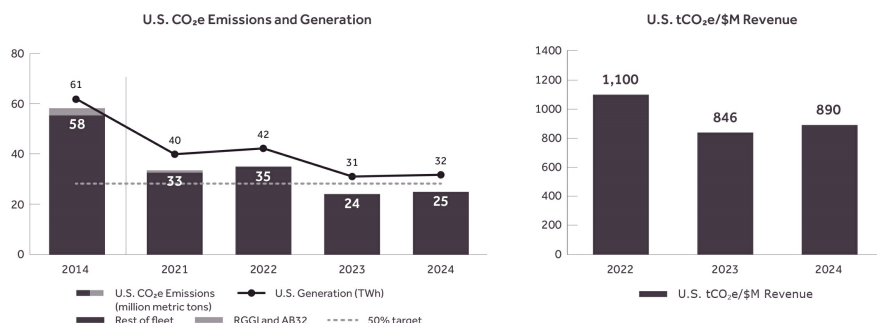
NRG's climate goals are to reduce greenhouse gas emissions by 50% by 2025, from its current 2014 base year, and to achieve net-zero emissions by 2050. Greenhouse gas emissions included in NRG's goals are directly controlled emissions, emissions from purchased electricity for NRG's consumption and emissions from employee business travel. In March 2021, the Science Based Targets initiative validated NRG's 2025 and 2050 goals as aligned with a 1.5 degree Celsius trajectory. This validation was based on NRG's business in 2020, prior to its acquisition of Direct Energy and Vivint. Following the acquisitions, the magnitude of NRG's indirect emissions changed, and the Company is currently in the process of analyzing these emissions.

From the current 2014 base year through 2024, the Company's directly controlled CO₂e emissions decreased from 58 million metric tons to 25 million metric tons, representing a cumulative 57% reduction. The decrease is attributed to reductions in fleet-wide annual net generation and an overall market-driven shift away from coal as a primary fuel to natural gas. The

continued achievement of NRG's 2025 emissions reduction targets could be impacted by volatility within the power markets, driven by market conditions and changes in regulatory policies.

As of December 31, 2024, less than 5% of the Company's consolidated revenues were derived from coal-fired operating assets.

The following charts reflect the Company's domestic generation portfolio, including leased facilities and those accounted for through equity method investments, but excluding the battery storage and remaining renewables activity. Prior year information on U.S. CO₂e emissions and U.S. generation was adjusted to remove divested assets.



Mercury and Air Toxics Standards ("MATS") — On May 7, 2024, the EPA promulgated a final rule that amends the MATS rule by, among other things, increasing the stringency of the filterable particulate matter standard at coal-burning units. The deadline for complying with this more stringent standard is 2027. Twenty three states have challenged this rule in the D.C. Circuit. Accordingly, the outcome of this rulemaking is uncertain. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Byproducts

In April 2015, the EPA finalized the rule regulating byproducts of coal combustion (e.g., ash and gypsum) as solid wastes under the RCRA. On July 30, 2018, the EPA promulgated a rule that amended the ash rule by extending some of the deadlines and providing more flexibility for compliance. On August 21, 2018, the D.C. Circuit found, among other things, that the EPA had not adequately regulated unlined ponds and legacy surface impoundments. On August 28, 2020, the EPA finalized "A Holistic Approach to Closure Part A: Deadline to Initiate Closure," which amended the April 2015 Rule to address the August 2018 D.C. Circuit decision and extend some of the deadlines. On November 12, 2020, the EPA finalized "A Holistic Approach to Closure Part B: Alternative Demonstration for Unlined Surface Impoundments," which further amended the April 2015 Rule to, among other things, provide procedures for requesting approval to operate existing ash impoundments with an alternate liner. On May 8, 2024, the EPA promulgated a rule that establishes requirements for: (i) inactive (or legacy) surface impoundments at inactive facilities and (ii) coal combustion residuals ("CCR") management units (regardless of how or when the CCR was placed) at regulated facilities. The rule also creates an obligation to conduct site assessments (at all active and certain inactive facilities) to determine whether CCR management units are present. The rule has been challenged in the D.C. Circuit and the outcome of the legal challenges is uncertain. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Domestic Site Remediation Matters

Under certain federal, state and local environmental laws, a current or previous owner or operator of a facility, including an electric generating facility, may be required to investigate and remediate releases or threatened releases of hazardous or toxic substances or petroleum products. NRG may be responsible for property damage, personal injury and investigation and remediation costs incurred by a party in connection with hazardous material releases or threatened releases. These laws impose liability without regard to whether the owner knew of or caused the presence of the hazardous substances, and the courts have interpreted liability under such laws to be strict (without fault) and joint and several. Cleanup obligations can often be triggered during the closure or decommissioning of a facility, in addition to spills during its operations.

Jewett Mine Lignite Contract — The Company's Limestone facility historically burned lignite obtained from the Jewett mine. Active mining ceased as of December 31, 2016; however, the Company remains responsible for reclamation activities and is responsible for all reclamation costs. NRG has recorded an adequate ARO liability. The Railroad Commission of Texas has imposed a bond obligation of approximately \$112 million for the reclamation of the Jewett mine, which NRG supports through surety bonds. The cost of the reclamation may exceed the value of the bonds. NRG may provide additional performance assurance if required by the Railroad Commission of Texas.

Water

The Company is required under the Clean Water Act to comply with intake and discharge requirements, requirements for technological controls and operating practices. As with air quality regulations, federal and state water regulations have become more stringent and imposed new requirements.

ELG — In 2015, the EPA revised the ELG for Steam Electric Generating Facilities, which imposed more stringent requirements (as individual permits were renewed) for wastewater streams from FGD, fly ash, bottomash and flue gas mercury control. In 2017, the EPA promulgated a final rule that, among other things, postponed the compliance dates to preserve the status quo for FGD wastewater and bottomash transport water by two years to November 2020 until the EPA amended the rule. On October 13, 2020, the EPA amended the 2015 ELG rule by: (i) altering the stringency of certain limits for FGD wastewater; (ii) relaxing the zero-discharge requirement for bottom ash transport water; and (iii) changing several deadlines. In October 2021, NRG informed its regulators that the Company intends to comply with the ELG by ceasing combustion of coal by the end of 2028 at its domestic coal units outside of Texas, and installing appropriate controls by the end of 2025 at its two plants that have coal-fired units in Texas. On May 9, 2024, the EPA promulgated a rule that revises the ELG by, among other things, further restricting the discharge of (i) FGD wastewater, (ii) bottom ash transport water, and (iii) combustion residual leachate. The rule was challenged in numerous courts, but the cases have been consolidated in the Eighth Circuit of the U.S. Court of Appeals. The outcome of the legal challenges is uncertain. On February 19, 2025, the DOJ filed a motion asking the court to hold proceedings in abeyance while the new administration evaluates the rule. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Regional Environmental Developments

Ash Regulation in Illinois — On July 30, 2019, Illinois enacted legislation that required the state to promulgate regulations regarding coal ash at surface impoundments. On April 15, 2021, the state promulgated the implementing regulation, which became effective on April 21, 2021. NRG has applied for initial operating permits and construction permits (for closure and retrofits) as required by the regulation and is waiting for most of its permits to be issued by the Illinois EPA.

Houston Nonattainment for 2008 Ozone Standard — In 2022, the EPA changed the Houston area's classification from Serious to Severe nonattainment for the 2008 Ozone Standard. Accordingly, Texas is required to develop a new control strategy and submit it to the EPA.

Customers

NRG sells to a wide variety of customers, primarily end-use customers in the residential, commercial and industrial, and wholesale sectors. The Company owns and operates power plants to generate and sell power to wholesale customers, such as utilities and other intermediaries. The Company had no customer that comprised more than 10% of the Company's consolidated revenues for the year ended December 31, 2024.

Human Capital

As of December 31, 2024, NRG and its consolidated subsidiaries had 15,637 employees, including 7,028 active smart home direct sales and installation individuals, which are largely seasonal. Approximately 4% of the Company's employees were covered by U.S. collective bargaining agreements. During 2024, the Company did not experience any labor stoppages or labor disputes at any of its facilities.

NRG believes its employees are vital to its success and is committed to offering employees a rewarding career that provides opportunities for growth and the ability to make valuable contributions toward the achievement of the Company's business objectives. NRG focuses on safety, health and wellness, employee engagement, talent development and total rewards for its workforce.

Safety

Safety is embedded in the culture at NRG. The Company strives to begin meetings with a safety moment and regularly reminds its employees that safety comes first. NRG has achieved its targeted top decile safety record of Occupational Safety and Health Administration recordable injury rates in each of the 5 previous years.

The following chart reflects the Company's 5 year safety record, excluding Vivint Smart Home which uses different industry specific safety benchmarks.



Health and Wellness

NRG has continued to invest in the health and well-being of its employees and their families by providing programs that holistically support its employees' physical, emotional, social and financial wellness, allowing employees the opportunity to take control of their well-being and focus on what matters most to them for a healthy, secure future. The Company includes well-being goals as a metric in the Annual Incentive Plan (AIP), ensuring participants are motivated to improve their overall well-being.

Employee Engagement

NRG seeks to create work environments where employees are treated fairly and respectfully and where each voice matters. The Company seeks to build on that position by continually improving its hiring and promotion policies and supporting the growth of Business Resource Groups ("BRGs"). In these BRGs, employees can share, learn, and receive support from colleagues with whom they have an affinity based on shared backgrounds or interests. The Company strives to be a place that empowers employee growth that celebrates the individual employee and his or her unique backgrounds.

Talent Development

NRG deploys various talent development strategies and programs to develop leaders who can execute on the Company's strategy and drive value for all stakeholders. The Board of Directors regularly engages with management on leadership development and succession planning, including providing feedback on development plans and bench strength for key senior leader positions. In 2024, the Company continued its annual Emerging Executive Leaders Program to strengthen the identified pipeline of future executives and create a cohort of high potential candidates to work on active company challenges or opportunities. Additionally, the Company expanded a front-line leader program called Peak Leadership to the entire company with the intent to onboard first-level leaders into their leadership role in select business units, and will look to continue growing the initiative in 2025. The Company has a performance management tool that emphasizes a continuous feedback loop and a robust online training curriculum covering topics such as leadership, communication and productivity.

Total Rewards

NRG seeks to provide market competitive compensation and benefits benchmarked against the industries in which the Company operate: energy, consumer services and, where appropriate, the entire market. To ensure incentives are properly aligned with business needs and can attract and retain qualified employees, the Compensation Committee of the Board of Directors actively reviews the Company's total rewards programs, including benchmarking, risk assessment, and program design. NRG offers full-time employees incentives designed to motivate and reward success, and it continues to evaluate its benefits and offerings taking into consideration the needs of its employees to ensure they are competitive and best serve its employees. Every two years, the Company engages an independent third-party to benchmark its compensation and benefits programs against its peers and report the results to the Compensation Committee of the Board of Directors.

For further discussion and recent available data regarding the Company's efforts and programs please see the Company's 2024 Proxy Statement and 2023 Sustainability Report, which are available on the Company's website at: www.nrg.com. Information included in these documents is not intended to be incorporated into this Annual Report on Form 10-K.

Available Information

NRG'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 SEC's website, www.sec.gov, and through the Company's website, www.nrg.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, sustainability reports and other information regarding the Company on the Company's website. The information posted on the Company's website is not a part of this report.

Item 1A — Risk Factors

NRG's risk factors are grouped into the following categories: (i) Risks Related to the Operation of NRG's Business; (ii) Risks Related to Governmental Regulation and Laws; and (iii) Risks Related to Economic and Financial Market Conditions and the Company's Indebtedness.

Risks Related to the Operation of NRG's Business

NRG's financial performance may be impacted by price fluctuations in the retail and wholesale power and natural gas markets, as well as fluctuations in coal and oil markets and other market factors that are beyond the Company's control.

Market prices for power, capacity, ancillary services, natural gas, coal, oil and renewable energy credits are unpredictable and tend to fluctuate substantially. Electric power generally must be produced concurrently with its use. As a result, power prices are subject to significant volatility due to supply and demand imbalances, especially in the day-ahead and spot markets. Long and short-term power and gas prices may also fluctuate substantially due to other factors outside of the Company's control, including:

- changes in generation capacity in the Company's markets, including the addition of new supplies of power as a result of the development of new plants, expansion of existing plants, the continued operation of uneconomic power plants due to state subsidies, retirement of existing plants or addition of new transmission capacity;
- electric supply disruptions, including plant outages and transmission disruptions;
- changes in power and gas transmission infrastructure;
- transportation capacity constraints or inefficiencies;
- weather conditions, including extreme weather conditions and seasonal fluctuations, including the effects of climate change;
- a public health crisis, epidemic or pandemic;
- changes in commodity prices and the supply of commodities, including but not limited to natural gas, coal and oil;
- changes in the demand for power or gas, or in patterns of power or gas usage, including the potential development of demand-side management tools and practices, distributed generation, and more efficient end-use technologies;
- development of new fuels, new technologies and new forms of competition for the production of power;
- economic and political conditions, including the impact of changing U.S. trade policies and potential additional tariffs that may be imposed;
- changes in law, including judicial decisions, environmental regulations and environmental legislation; and
- federal, state and provincial power regulations and legislation, and regulations and actions of the ISO and RTOs.

While retail rates are generally designed to allow retail sellers of electricity and natural gas to pass through price fluctuations and other changes to costs, the Company may not be able to pass through all such changes to customers. For example, serving retail power customers in ISOs that have a capacity market exposes the Company to the risk that capacity costs can change and may not be recoverable, or the Company may engage in sales of power at fixed prices. Additionally, increases in wholesale costs to retail customers may cause additional customer defaults or increased customer attrition, or may be impacted by regulatory rules.

Conversely, should natural gas prices rise to consistently exceed coal prices, NRG's demand for coal generation may exceed the near-term ability of coal suppliers or rail transporters to meet it, causing the Company to lose generation sales opportunities and/or realize higher retail energy supply costs.

Such factors and the associated fluctuations in power prices have affected the Company's wholesale and retail profitability in the past and are expected to continue to do so in the future.

Volatile power and gas supply costs and demand for power and gas could adversely affect the financial performance of NRG's retail operations.

The Company's earnings and cash flows could be adversely affected in any period in which the wholesale power or gas prices rise at a greater rate than the rates the Company can charge to customers. The price of wholesale electricity and gas supply purchases associated with the retail operations' energy commitments can be different than that reflected in the rates charged to customers due to, among other factors:

- varying supply procurement contracts used and the timing of entering into related contracts;
- subsequent changes in the overall price of natural gas;
- daily, monthly or seasonal fluctuations in the price of natural gas relative to the 12-month forward prices;
- transmission and transportation constraints and the Company's ability to move power or gas to its customers; and
- changes in market heat rate (i.e., the relationship between power and natural gas prices).

The Company's earnings and cash flows could also be adversely affected in any period in which its customers' actual usage of electricity or gas significantly varies from the forecasted usage, which could occur due to, among other factors, weather events, changes in usage patterns, competition and economic conditions.

The Company's expectations regarding load growth may not materialize.

The electricity industry is expected to experience a surge in demand driven primarily by new manufacturing, industrial and data center facilities (inclusive of generative AI ("GenAI")). The U.S. Energy Information Administration's 2023 Annual Energy Outlook, combined with external forecasts, shows the potential for 500 TWh of incremental load across the U.S. through 2030, as compared to 2023. ERCOT's current long term load forecast shows peak demand increasing from 86 GW in 2024 to 137 GW in 2028.

However, there is no assurance that these forecasts will be accurate or that the anticipated load growth will occur as projected. Factors such as evolving technology, improvements in energy efficiency, changes in economic conditions, shifts in government policy or regulation, and project delays or cancellations by the Company's commercial and industrial consumers (including data center facilities) could reduce or slow demand for electricity relative to current expectations. The Company's capital expenditures and other investments are influenced by projected demand; if the anticipated load growth fails to materialize, the Company could incur additional expenses to terminate or redeploy any underutilized assets or infrastructure, or it may be unable to fully recover its capital expenditures or realize the expected returns on its investments.

Operation of power generation facilities involves significant risks and hazards customary to the power industry that could have a material adverse effect on NRG's revenues and results of operations, and NRG may not have adequate insurance to cover these risks and hazards.

The ongoing operation of NRG's facilities involves risks that include the breakdown or failure of equipment or processes, performance below expected levels of output or efficiency and the inability to transport the Company's 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 Company's business. Unplanned outages typically increase the Company's operation and maintenance expenses and may reduce the Company's revenues as a result of selling fewer MWh or incurring non-performance penalties and/or require NRG to incur significant costs as a result of obtaining replacement power from third parties in the open market or running one of its higher cost units to satisfy the Company's forward power sales obligations. NRG's inability to operate the Company's plants 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 results of operations, financial condition or cash flows.

In addition, NRG provides plant operations and commercial services to a variety of third parties. There is a risk that mistakes, mis-operations or actions taken by these third parties could be attributed to NRG, including the risk of investigation or penalties being assessed to NRG in connection with the services it offers, or that regulators could question whether NRG had the appropriate safeguards in place.

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, wildfires, 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, contamination of, or damage to, the environment and suspension of operations. The occurrence of any one of these events may result in NRG 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.

NRG maintains an amount of insurance protection that it considers adequate, obtains warranties from vendors and obligates contractors to meet certain performance levels, but the Company cannot provide any assurance that these measures will be sufficient or effective under all circumstances and against all hazards or liabilities to which it may be subject. A successful claim for which the Company is not adequately insured or protected could hurt its financial results and materially harm NRG's financial condition. NRG 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 financial condition, results of operations or cash flows.

NRG's costs, results of operations, financial condition and cash flows could be adversely impacted by disruption of its fuel supplies.

NRG relies on natural gas, coal and oil to fuel a majority of its power generation facilities. Grid operations depend on the continuing financial viability of contractual counterparties, as well as the infrastructure (including rail lines, rail cars, barge facilities, roadways, riverways and natural gas pipelines) available to serve generation facilities and to ensure that there is sufficient power produced to meet retail demand. As a result, the Company's wholesale generation facilities are subject to the risks of disruptions or curtailments in the production of power at its generation facilities if no fuel is available at any price, if a counterparty fails to perform or if there is a disruption in the fuel delivery infrastructure.

NRG routinely hedges both its wholesale sales and purchases to support its retail load obligations. In order to hedge these obligations, the Company may enter into long-term and short-term contracts for the purchase and delivery of fuel. Many of the

forward power sales contracts do not allow the Company to pass through changes in fuel costs or discharge the power sale obligations in the case of a disruption in fuel supply due to force majeure events or the default of a fuel supplier or transporter. Disruptions in the Company's fuel supplies or power supply arrangements may therefore require it to supply replacement power either by running its other, higher cost power plants or by obtaining power from third-party sources at market prices that could substantially exceed the contract price, or to pay damages to counterparties for failure to deliver power or sell electricity or natural gas as contracted. Any such event could have a material adverse effect on the Company's financial performance.

NRG also buys energy and fuel on a short-term or spot market basis. Prices sometimes rise or fall significantly over a relatively short period of time. The price NRG can obtain for the sale of energy may not rise at the same rate, or may not rise at all, to match a rise in fuel or delivery costs. Retail rates may also not rise at the same rate or may not rise at all. This may have a material adverse effect on the Company's financial performance.

NRG's plant operating characteristics and equipment, particularly at its coal-fired plants, often dictate the specific fuel quality to be combusted. The availability and price of specific fuel qualities may vary due to supplier financial or operational disruptions, transportation disruptions and force majeure. At times, coal of specific quality may not be available at any price or the Company may not be able to transport such coal to its facilities on a timely basis. In this case, the Company may not be able to run the coal facility even if it would be profitable. Operating a coal facility with different quality coal can lead to emission or operating problems. If the Company had sold forward the power from such a coal facility, it could be required to supply or purchase power from alternate sources, perhaps at a loss. This could have a material adverse impact on the financial results of specific plants and on the Company's results of operations.

NRG relies on storage, transportation assets and suppliers, which it does not own or control, to deliver natural gas.

The Company depends on natural gas pipelines and other transportation and storage facilities owned and operated by third parties to deliver natural gas to wholesale and retail markets and to provide retail energy services to customers. The Company's ability to provide natural gas for its present and projected customers will depend upon its suppliers' ability to obtain and deliver supplies of natural gas, as well as NRG's ability to acquire supplies. Factors beyond the control of the Company and its suppliers may affect the Company's ability to deliver such supplies. These factors include other parties' control over the drilling of new wells and the facilities to transport natural gas to the Company's receipt points, development of additional interstate pipeline infrastructure, availability of supply sources competition for the acquisition of natural gas, priority allocations, impact of severe weather disruptions to natural gas supplies and the regulatory and pricing policies of federal and state regulatory agencies, as well as the availability of Canadian reserves for export to the U.S. Energy deregulation legislation may increase competition among natural gas utilities and impact the quantities of natural gas requirements needed for sales service. If supply, transportation or storage is disrupted, including for reasons of force majeure, the ability of the Company to sell and deliver its products and services may be hindered. As a result, the Company may be responsible for damages incurred by its customers, such as the additional cost of acquiring alternative supply at then-current market rates. These conditions could have a material impact on the Company's financial condition, results of operations and cash flows.

NRG relies on power transmission and distribution facilities that it does not own or control and that are subject to transmission constraints within a number of the Company's core regions.

NRG depends on transmission and distribution facilities owned and operated by others to deliver power to its customers. If transmission or distribution is disrupted, including by force majeure events, or if the transmission or distribution infrastructure is inadequate, NRG's ability to deliver power may be adversely impacted. The Company also cannot predict whether transmission or distribution facilities will be expanded in specific markets to accommodate competitive access to those markets.

In addition, in certain of the markets in which NRG operates, energy transmission congestion may occur and the Company may be deemed responsible for congestion costs associated with power sales or purchases, or retail sales, particularly where the Company's load is not co-located with its retail sales obligations. If NRG were liable for such congestion costs, the Company's financial results could be adversely affected.

Maintenance, expansion and refurbishment of power generation facilities involve significant risks that could result in unplanned power outages or reduced output and could have a material adverse effect on NRG's results of operations, cash flows and financial condition.

NRG's facilities require periodic maintenance and repair. Any unexpected failure, including failure associated with breakdowns, forced outages or any unanticipated capital expenditures could result in reduced profitability. NRG cannot be certain of the level of capital expenditures that will be required due to changing environmental and safety laws (including changes in the interpretation or enforcement thereof), needed facility repairs and unexpected events (such as natural disasters or terrorist attacks). The unexpected requirement of large capital expenditures could have a material adverse effect on the Company's liquidity and financial condition.

The Company may incur additional costs or delays in the development and construction of new generation projects and may not be able to recover its investments or complete the projects.

NRG's development and construction of new generation facilities involve many risks, including:

- inability to receive governmental or other third-party funding;
- delays or inability in obtaining necessary permits and licenses;
- supply interruptions;
- work stoppages and labor disputes;
- weather interferences;
- unforeseen engineering, environmental and geological problems;
- unanticipated cost overruns; and
- failure of various third parties to perform under contracts.

Any of these risks could cause NRG's financial returns on such new investments to be lower than expected, or could cause the Company to operate below expected capacity or availability levels, which could result in loss of revenues, increase in expenses, higher maintenance costs and penalties. To protect against these risks, insurance is maintained, warranties are generally obtained for limited periods relating to the construction of each project and its equipment in varying degrees, and contractors and equipment suppliers are obligated to meet certain performance levels. The insurance, warranties or performance guarantees, however, may not be adequate to cover increased expenses. As a result, a project may cost more than projected and the Company may be unable to fund principal and interest payments under construction financing obligations, if any.

Furthermore, where the Company has partnering relationships with a third party, the Company is subject to the viability and performance of the third party. The Company's inability to find a replacement contracting party where the original contracting party has failed to perform, could result in the abandonment of the development and/or construction of such project, while the Company could remain obligated on other agreements associated with the project.

If the Company is unable to complete the development or construction of a facility, or decides to delay, downsize, or cancel such project, it may not be able to recover its investment in that facility. Furthermore, if construction projects are not completed according to specification, the Company may incur liabilities and suffer reduced plant efficiency, higher operating costs and reduced net income.

Because NRG owns less than a majority of the ownership interests of some of its project investments, the Company cannot exercise complete control over their operations.

NRG has limited control over the operation of some project investments and joint ventures because the Company's investments are in projects where it beneficially owns less than a majority of the ownership interests. NRG seeks to exert a degree of influence with respect to the management and operation of projects in which it owns less than a majority of the ownership 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. NRG may be dependent on its co-venturers to operate such projects. The Company's co-venturers may not have the level of experience, technical expertise, human resources management or other attributes necessary to operate these projects optimally. The approval of co-venturers also may be required for NRG to receive distributions of funds from projects or to transfer the Company's interest in projects.

NRG's trading operations and use of hedging agreements could result in financial losses that negatively impact its results of operations, and NRG's hedging activities may increase the volatility in the Company's quarterly and annual financial results.

The Company typically enters into hedging agreements, including contracts to purchase or sell commodities at future dates and at fixed prices, to manage the commodity price risks inherent in its business. The Company's risk management policies and hedging procedures may not mitigate risk as planned, and the Company may fail to fully or effectively hedge its commodity supply and price risk. In addition, these activities, although intended to mitigate price volatility, expose the Company to other risks. When the Company sells or buys power or gas forward, it gives up the opportunity to buy or sell at the future price, which not only may result in lost opportunity costs but also may require the Company to post significant amounts of cash collateral or other credit support to its counterparties. The Company also relies on counterparty performance under its hedging agreements and is exposed to the credit quality of its counterparties under those agreements. Further, if the values of the 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 Company's business, operating results or financial position.

NRG does not typically hedge the entire exposure of its operations against commodity price volatility. To the extent it does not hedge against commodity price volatility, the Company's results of operations and financial position may be improved or diminished based upon movement in commodity prices.

NRG may engage in trading activities, including the trading of power, natural gas, fuel, emissions allowances, environmental attributes and credits, weather, and other physical and financial commodity related products that are not directly related to the operation of the Company's generation facilities or the management of related risks. These trading activities take place in volatile markets and some of these trades could be characterized as speculative. This trading activity may expose the Company to the risk of significant financial losses which could have a material adverse effect on its business and financial condition.

NRG generally attempts to balance its fixed-price physical and financial purchases and sales commitments in terms of contract volumes and the timing of performance and delivery obligations through the use of financial and physical derivative contracts. These derivatives are accounted for in accordance with the FASB ASC 815, *Derivatives and Hedging* ("ASC 815"), which requires the Company to record all derivatives on the balance sheet at fair value with changes in the fair value resulting from fluctuations in the underlying commodity prices immediately recognized in earnings, unless the derivative qualifies for cash flow hedge accounting treatment or a scope exception. As a result, the Company's quarterly and annual results are subject to significant fluctuations caused by changes in market prices.

NRG may not have sufficient liquidity to hedge market risks effectively.

The Company is exposed to market risks through its retail and wholesale operations, which involve the purchase of electricity and natural gas for resale, the sale of energy, capacity and related products, and the purchase and sale of fuel, transmission services and emission allowances. These market risks include, among other risks, volatility arising from location and timing differences that may be associated with buying and transporting fuel, converting fuel into energy and delivering energy to a buyer.

NRG undertakes to hedge these market activities through agreements with various counterparties. Many of the Company's agreements with counterparties include provisions that require the Company to provide guarantees, offset or netting arrangements, letters of credit, a first lien on assets and/or cash collateral to protect the counterparties against the risk of the Company's default or insolvency. The amount of such credit support that must be provided typically is based on the difference between the price of the commodity in a given contract and the market price of the commodity. Significant movements in market prices can result in the Company being required to provide cash collateral and letters of credit in very large amounts. The effectiveness of the Company's strategy may depend on the amount of collateral available to enter into or maintain these contracts, and liquidity requirements may be greater than the Company anticipates or will be able to meet. Without a sufficient amount of working capital to post as collateral in support of performance guarantees or as a cash margin, the Company may not be able to manage price volatility effectively or to implement its strategy. An increase in the amount of letters of credit or cash collateral required to be provided to the Company's counterparties may negatively affect the Company's liquidity and financial condition.

Further, if retail customers use more power or gas than expected, or if any of NRG's facilities experience unplanned outages, the Company may be required to procure additional power or gas at spot market prices to fulfill contractual commitments. Without adequate liquidity to meet margin and collateral requirements, the Company may be exposed to significant losses, may miss significant opportunities, and may have increased exposure to the volatility of spot markets.

There may be periods when NRG will not be able to meet its commitments under forward sale or purchase obligations at a reasonable cost or at all.

The Company may sell fixed price gas as a proxy for power. Because the obligations under most of the Company's forward sale agreements are not contingent on a unit being available to generate power, NRG is generally required to deliver power to the buyer, even in the event of a plant outage, fuel supply disruption or a reduction in the available capacity of the unit. To the extent that the Company does not have sufficient lower-cost capacity to meet its commitments under its forward sale obligations, the Company would be required to supply replacement power either by running its other, higher cost power plants or by obtaining power from third-party sources at market prices that could substantially exceed the contract price. If NRG fails to deliver the contracted power, it would be required to pay the difference between the market price at the delivery point and the contract price, and the amount of such payments could be substantial.

NRG's strategy relies, in part, on its ability to bundle its products and services to optimize its network of home energy and smart home customers, and if it is unable to retain existing customers and expand their use of the Company's products and services, its expected growth and operating results could be adversely affected.

As part of NRG's growth strategy, it is important for the Company to bundle home energy and smart home services and products to optimize its customer base. As the Company is pursuing these opportunities to bundle services and products, there can be no assurances that its efforts in this regard will be successful. Additionally, for the Company to be successful in such opportunities, it must retain its existing customers. The length of the terms for which NRG's home energy customers are contracted can be for multi-year periods, but many customers are contracted for a period of one year or less. Smart home customers historically have entered into subscriptions that range from three to five years. These customers are not obligated to, and may not, renew their contracts or subscriptions after the expiration of their original commitments. If customers terminate or

do not renew their contracts or do not expand their use of NRG's products and services, the Company's growth strategy may not be successful and its expected results of operations may be adversely affected.

The Company has made investments focused on consumer products that may not be successful, may not achieve the intended financial results or may result in product liability and reputational risk that could adversely affect the Company.

The Company may be liable to customers for any damage caused to customers' homes, facilities, belongings or property during the installation of Company products and systems, such as smart home systems. Where such work is performed by independent contractors, such as repairs performed under the Company's home protection plan products, the Company may nonetheless face claims and costs for damage. In addition, shortages of skilled labor for Company projects could significantly delay a project or otherwise increase its costs. The products that the Company sells or manufactures may expose the Company to product liability claims relating to personal injury, death, or environmental or property damage, and may require product recalls or other actions. Although the Company maintains liability insurance and its service contracts limit Company liability, the Company cannot be certain that its coverage will be adequate for liabilities actually incurred or that insurance will continue to be available to the Company on economically reasonable terms, or at all, or that contractual limitations will be enforced. The laws of some states limit or prohibit insurance coverage for certain liabilities and actions, and any significant uninsured damages could have a material adverse effect on the Company's business, financial condition and cash flows. Further, any product liability claims or damage caused by the Company could significantly impair the Company's brand and reputation, which may result in a failure to maintain customers and achieve the Company's desired growth initiatives in these new businesses.

Changes in technology may impair the value of, and the attractiveness of, NRG's retail products, smart home services and generation facilities.

Research and development activities are ongoing in the industry to provide alternative and more efficient technologies to produce power, including wind, photovoltaic (solar) cells, hydrogen, energy storage, and improvements in traditional technologies and equipment, such as more efficient gas turbines. Advances in these or other technologies, including through AI, could reduce the costs of power production to a level below what the Company has currently forecasted, which could adversely affect its cash flows, results of operations or competitive position. Technology, including distributed technology or changes in retail rate structures, may also have a material impact on the Company's ability to retain retail customers. Further, technological innovation and changes could cause the Company's smart home products and services to become obsolete, or otherwise more expensive and less effective than those of competitors, putting the Company at a competitive disadvantage.

Some emerging technologies, such as distributed renewable energy technologies, broad consumer adoption of electric vehicles and energy storage devices, could affect the price of energy. These emerging technologies may affect the financial viability of utility counterparties and could have significant impacts on wholesale market prices, which could ultimately have a material adverse effect on NRG's financial condition, results of operations and cash flows.

The Company's smart home services rely on innovation and any failure to adequately protect the Company's intellectual property underlying such innovation, or claims that the Company has infringed the intellectual property rights of others, could have an adverse effect on its business and operations and result in a competitive disadvantage.

The Company relies on a combination of patent, trademark, copyright and trade secret right under the laws of the United States and other countries and a combination of confidentiality procedures, contractual provisions and other methods, to protect its intellectual property, all of which offer only limited protection. If the Company fails to acquire the necessary intellectual property rights or adequately protect or assert its intellectual property rights, competitors may manufacture and market similar products and services or convert customers, which could adversely affect market share and results of operations for smart home services. In addition, patent rights may not prevent competitors from developing, using or selling products or services that are similar to or address the same market as the Company's smart home products and services. Certain of the Company's smart home solutions contain software modules licensed under "open-source" licenses, which may entail greater risks than the use of commercial software, as open-source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Further, if proprietary software is combined with open-source software, in certain cases the Company could be required to release the source code of the proprietary software to the public, allowing competitors to create similar products with lower development effort and time.

It is possible that certain of the Company's smart home products and services or those of third parties incorporated into its offerings could infringe the intellectual property rights of others. From time to time, Vivint Smart Home has been subject to claims based on allegations of infringement, misappropriation or other violations of the intellectual property rights of others. If the Company is unable to successfully defend against such claims or license necessary third-party technology or intellectual property on acceptable terms, it may be required to develop alternative, non-infringing technology, which could require significant time, effort, and expense and may ultimately not be successful.

The operation of the Company's businesses is subject to advanced persistent cyber-based security threats and integrity risk. Attacks on NRG's infrastructure that breach cyber/data security measures could expose the Company to significant liabilities, reputational damage, regulatory action, and disrupt business operations, which could have a material adverse effect.

Numerous functions affecting the efficient operation of NRG'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, much of which is connected (directly or indirectly) to the internet. As a result, NRG's information technology systems and infrastructure, and those of its vendors and suppliers, are vulnerable to cyber-based security threats which could compromise confidentiality, integrity or availability. While the Company has controls in place designed to protect its infrastructure, such breaches and threats are becoming increasingly sophisticated and complex, requiring continuing evolution and constant improvements in security programs and technology. Any such breach, disruption or similar event that impairs NRG's information technology infrastructure could disrupt normal business operations and affect the Company's ability to control its generation assets, provide smart home services, maintain confidentiality, availability and integrity of restricted data, access retail customer information and limit communication with customers and third parties, which could have a material adverse effect on the Company.

As part of the continuing development of new and modified reliability standards, the FERC has approved changes to its Critical Infrastructure Protection reliability standards and has established standards for assets identified as "critical cyber assets." Under the Energy Policy Act of 2005, the FERC can impose penalties, up to \$1 million per day, per violation, for failure to comply with mandatory electric reliability standards, including standards to protect the power system against potential disruptions from cyber/data and physical security breaches.

Further, the Company's retail and Home businesses, as well as Vivint Smart Home's smart home platform, require accessing, collecting, storing and transmitting sensitive customer data in the ordinary course of business. Concerns about data privacy have led to increased regulation and other actions that could impact NRG's businesses and changes in data privacy and data protection laws and regulations or any failure to comply with such laws and regulations could adversely affect the Company's business and financial results. NRG's retail, Home and smart home businesses access and store sensitive customer data. Additionally, NRG relies on vendors and service providers, such as call centers, that may require access to sensitive data, which increase the risk of data breaches through third-party action or errors. The services and the networks and information systems utilized by the Company may be at risk for breaches as a result of third-party actions, employee or vendor error, malfeasance or other factors.

Although the Company takes precautions to protect its infrastructure, it has been, and will likely continue to be, subject to attempts at phishing and other cybersecurity intrusions. International conflict increases the risk of state-sponsored cyber threats and escalated use of cybercriminal and cyber-espionage activities. In particular, the current geopolitical climate has further escalated cybersecurity risk, with various government agencies, including the U.S. Cybersecurity & Infrastructure Security Agency, issuing warnings of increased cyber threats, particularly for U.S. critical infrastructure. Additionally, the rapid advancement and integration of AI and machine learning technologies present new and evolving risks. These technologies can be exploited by malicious actors to enhance the sophistication and scale of cyberattacks, making it more challenging to detect and mitigate such threats. While the Company has not experienced a cyber/data breach or event causing any material operational, reputational or financial harm, it recognizes the growing threat within the general marketplace and the industry, and there is no assurance that NRG will be able to prevent any such harm in the future. If a material breach of the Company's information technology systems were to occur, the critical operational capabilities and reputation of its business may be adversely affected, customer confidence may be diminished, and NRG may be subject to substantial legal or regulatory scrutiny and claims, any of which may contribute to potential legal or regulatory actions against the Company, loss of customers, fines, penalties or other sanctions and otherwise have a material adverse effect. Any loss or disruption of critical operational capabilities to support the Company's generation, commercial or retail operations, loss of customers, or loss of confidential or proprietary data through a breach, unauthorized access, disruption, misuse or disclosure could adversely affect NRG's reputation, expose the Company to material legal or regulatory claims and impair the Company's ability to execute its business strategy, which could have a material adverse effect. In addition, NRG may experience increased capital and operating costs to implement enhanced security for its information technology infrastructure. NRG cannot provide any assurance that such events and impacts will not be material in the future, and the Company's efforts to deter, identify and mitigate future breaches may require additional significant capital and may not be successful.

The Company's growing use of AI systems in its operations, services and products poses inherent risks, which may cause operational and reputational harm.

The Company has incorporated and intends to continue to incorporate AI technologies, such as GenAI, in its operations, services and products. Because GenAI is an emerging technology, ineffective or inadequate AI development, governance, or deployment practices by NRG or third-party vendors could result in unintended consequences, and the desired efficiencies and other intended benefits could fail to materialize. Due to its non-deterministic nature, GenAI technologies can create accuracy

issues, unintended biases and discriminatory outcomes, or may create content that appears correct but is actually inaccurate or flawed. If the recommendations, content, or analyses that AI applications produce are or are alleged to be deficient or inaccurate, NRG could be subjected to potential legal liability and business harm, including brand or reputational harm and operational interruptions and ultimately have a material adverse effect on NRG's results of operations. In addition, the evolving nature of AI may cause new laws and regulations to be enacted which may require significant resources and costs to modify and maintain business practices in order to comply with these new laws and regulations.

Future acquisition or disposition activities could involve unknown risks and may have materially adverse effects and NRG may be subject to trailing liabilities from businesses that it disposes of or that are inactive.

NRG may in the future acquire or dispose of businesses or assets, acquire or sell books of retail customers, or pursue other business activities, directly or indirectly, through subsidiaries that involve a number of risks. The acquisition of companies and assets, and their integration, is subject to substantial risks, including the failure to identify material problems during due diligence, the risk of over-paying for assets or customers, the inability to retain customers and the inability to arrange financing for an acquisition as may be required or desired. Further, the integration and consolidation of acquisitions requires substantial human, financial and other resources and, ultimately, the Company's acquisitions may not be successfully integrated. In the case of dispositions, such risks may relate to employment matters, counterparties, regulators and other stakeholders in the disposed business, the separation of disposed assets from NRG's business, the management of NRG's ongoing business, and other financial, legal and operational matters related to such disposition, which may be unknown to NRG at the time. In addition, NRG may be subject to material trailing liabilities from disposed businesses. Any such risk may result in one or more costly disputes or litigation. There can be no assurances that any future acquisitions will perform as expected or that the returns from such acquisitions will support the indebtedness incurred to acquire them or the capital expenditures needed to develop them. There can also be no assurances that NRG will realize the anticipated benefits from any such dispositions. The failure to realize the anticipated returns or benefits from an acquisition or disposition could adversely affect NRG's results of operations, cash flows and financial condition.

Competition may have a material adverse effect on NRG's results of operations, cash flows and the market value of its assets.

The Company's retail operations face competition for customers. Competitors may offer different products, lower prices, and other incentives which may attract customers away from the Company. In some retail electricity markets, the principal competitor may be the incumbent utility. The incumbent utility often has the advantage of long-standing relationships with its customers and strong brand recognition. Furthermore, NRG may face competition from other energy service providers, other energy industry participants, or nationally branded providers of consumer products and services — including providers that may be better equipped to satisfy the large and rapid load growth expected of manufacturing, industrial, and data center customers — who have, and may in the future, develop businesses and offerings that compete with NRG.

The Company's smart home services market faces competition from residential security companies as well as other companies that are able to bundle their existing offerings, such as cable, telecommunications and internet service, with automation and monitored security services, and from do-it-yourself smart home systems, which customers are able to install without subscription services.

The Company's plant operations face competition from newer or more efficient plants owned by competitors, which may put some of the Company's plants at a disadvantage to the extent these competitors are able to consume the same or less fuel as the Company's plant. Over time, the Company's plants may be unable to compete with these more efficient plants, which could result in asset retirements.

NRG's competitors may have greater liquidity, greater access to credit and other financial resources, lower cost structures, more effective risk management policies and procedures, greater ability to incur losses, longer-standing relationships with customers, greater brand awareness, greater potential for profitability from retail sales or greater flexibility in the timing of their sale of generation capacity and ancillary services than NRG does. Competitors may also have better access to subsidies or other out-of-market payments that put NRG at a competitive disadvantage.

NRG's competitors may be able to respond more quickly to new laws or regulations or emerging technologies, or devote greater resources to marketing of retail energy and home services than NRG can. In addition, current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third parties. Accordingly, it is possible that new competitors or alliances among current and new competitors may emerge and rapidly gain significant market share.

There can be no assurance that NRG will be able to compete successfully against current and future competitors, and any failure to do so would have a material adverse effect on the Company's business, financial condition, results of operations and cash flow.

Supplier and/or customer concentration, the inability of suppliers to meet their obligations and dependence on third-party service providers may expose the Company to significant financial credit or performance risks and adversely affect NRG's results of operations, cash flows and financial condition.

NRG often relies on a single contracted supplier or a small number of suppliers for the provision and transportation of fuel, chemicals and other services required for the operation of certain of its facilities. If these suppliers cannot perform these services, the Company utilizes the marketplace. There can be no assurance that the marketplace can provide these services as, when and where required or at comparable prices. The Company also relies on a number of sole or limited source suppliers for critical components for its smart home products and services, and those services are dependent on third-party cellular, telecommunications and/or internet providers.

The failure of any supplier or customer to fulfill its contractual obligations to NRG, the inability of NRG to source products and services on acceptable terms, if at all, and the failure of third parties to provide services to its customers that are necessary for the Company's smart home services could have a material adverse effect on the Company's financial results. As a result, the financial performance of the Company's facilities is dependent on the credit quality of, and continued performance by, suppliers and customers, which cannot be guaranteed.

Negative publicity may damage NRG's reputation or its brands and negatively impact its business, financial condition, results of operations and ability to attract and retain highly qualified employees.

NRG's reputation and brands could be damaged for numerous reasons, including negative views of the Company's environmental impact, sustainability goals, supply chain practices, product and service offerings, sponsorship relationships, charitable giving programs and public statements made by Company officials. Additionally, the Company is from time to time named in investigations, claims and lawsuits arising in the ordinary course of business, and customers have in the past communicated complaints to consumer protection organizations, regulators or the media. Negative claims or publicity regarding the Company or its operations, offerings, practices or customer service may damage its brands or reputation, even if such claims are untrue. The Company may also experience criticism or backlash from media, customers, employees, government entities, advocacy groups and other stakeholders that disagree with positions taken by the Company or its executives. If the Company's brands or reputation are damaged, it could negatively impact the Company's business, financial condition, results of operations, and ability to attract and retain highly qualified employees.

NRG's business, financial condition and results of operations could be adversely impacted by strikes or work stoppages by its unionized employees or inability to replace employees as they retire.

As of December 31, 2024, approximately 4% of NRG's employees were covered by collective bargaining agreements. In the event that the Company's union employees strike, participate in a work stoppage or slowdown or engage in other forms of labor strife or disruption, NRG would be responsible for procuring replacement labor or the Company could experience reduced power generation or outages. Although NRG's ability to procure such labor is uncertain, contingency staffing planning is completed as part of each respective contract negotiation. Strikes, work stoppages or the inability to negotiate future collective bargaining agreements on favorable terms could have a material adverse effect on the Company's business, financial condition, results of operations and cash flows. In addition, a number of the Company's employees at NRG's plants are close to retirement. The Company's inability to replace retiring workers could create potential knowledge and expertise gaps as such workers retire.

NRG's failure to manage key executive succession and retention and to continue to attract qualified personnel could adversely affect the Company's financial condition and results of operations.

The loss of one or more of the Company's key personnel or the inability to effectively identify a suitable successor to a key role could adversely affect the Company's business. The failure to successfully transition and assimilate key employees, the effectiveness of the Company's leaders, and any further transition, could adversely affect the Company's financial condition and results of operations.

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

NRG's generation facilities 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 such activities, all of which 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. Any such environmental repercussions or disruption 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 Company's financial condition, results of operations and cash flows. In addition, significant weather events or terrorist actions could damage or shut down the power or gas transmission and distribution

facilities upon which the Company is dependent, which may reduce retail volume for extended periods of time. Power or gas supply may be sold at a loss if these events cause a significant loss of retail customer demand.

Risks Related to Governmental Regulation and Laws

NRG's business is subject to substantial energy regulation and may be adversely affected by legislative or regulatory changes, as well as liability under, or any future inability to comply with, existing or future energy regulations or requirements.

NRG's business is subject to extensive U.S. federal, state and local laws and foreign laws. Compliance with, or changes to, the requirements under these legal regimes may cause the Company to incur significant additional costs, reduce the Company's ability to hedge exposure or to sell retail power within certain states or to certain classes of retail customers, or restrict the Company's marketing practices, its ability to pass through costs to retail customers, or its ability to compete on favorable terms with competitors, including the incumbent utility. Retail competition and home protection services are regulated on a state-by-state or at the province-by-province level and are highly dependent on state and provincial laws, regulations and policies, which could change at any moment. Failure to comply with such requirements could result in the shutdown of a non-complying facility or line of business, the imposition of liens, fines, penalties 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 electricity. Except for ERCOT generation facilities and power marketers, all of NRG's non-qualifying facility generating companies and power marketing affiliates in the U.S. make sales of electricity in interstate commerce and are public utilities for purposes of the FPA. FERC has granted each of NRG's generating and power marketing companies that make sales of electricity outside of ERCOT the authority to sell electricity at market-based rates. FERC's orders that grant NRG's generating and power marketing companies market-based rate authority reserve the right to revoke or revise that authority if FERC subsequently determines that NRG can exercise market power in transmission or generation, create barriers to entry, or engage in abusive affiliate transactions. In addition, NRG's market-based sales are subject to certain market behavior rules, and if any of NRG's generating and power marketing companies were deemed to have violated those rules, they are subject to potential disgorgement of profits associated with the violation and/or suspension or revocation of their market-based rate authority. If NRG's generating and power marketing 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 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 NRG charges for power from its facilities.

The Company's generation assets are also subject to the reliability standards promulgated by the designated Electric Reliability Organization (currently NERC) and approved by FERC. If NRG fails to comply with the mandatory reliability standards, NRG could be subject to sanctions, including substantial monetary penalties and increased compliance obligations. NRG is also 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 ISOs. The 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 NRG's generation facilities that sell energy and capacity into the wholesale power markets.

The regulatory environment is subject to significant changes due to state and federal policies affecting wholesale and retail competition and the creation of incentives for the addition of large amounts of new renewable and nuclear generation and, in some cases, transmission. 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 NRG's business. In addition, in some of these markets, interested parties have proposed material market design changes. 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. In addition, there have been a number of reforms to the regulation of the derivatives markets, both in the United States and internationally. These regulations, and any further changes thereto, or adoption of additional regulations, including any regulations relating to position limits on futures and other derivatives or margin for derivatives, could negatively impact NRG's ability to hedge its portfolio in an efficient, cost-effective manner by, among other things, potentially decreasing liquidity in the forward commodity and derivatives markets or limiting NRG's ability to utilize non-cash collateral for derivatives transactions.

NRG's business may be affected by interference in the competitive wholesale marketplace.

NRG's generation and competitive retail operations rely on a competitive wholesale marketplace. The competitive wholesale marketplace may be impacted by out-of-market subsidies, imports of power from Canada, renewable mandates or subsidies, mandates to sell power below its cost of acquisition and associated costs as well as out-of-market payments to new or existing generators. These out-of-market subsidies to existing or new generation undermine the competitive wholesale marketplace, which can lead to premature retirement of existing facilities, including those owned by the Company. If these

measures continue, capacity and energy prices may be suppressed, and the Company may not be successful in its efforts to insulate the competitive market from this interference. The Company's retail operations may be materially impacted by rules or regulations that allow regulated utilities to participate in competitive retail markets or own and operate facilities that could be provided by competitive market participants.

Additions or changes in tax laws and regulations could potentially affect the Company's financial results or liquidity.

NRG is subject to various types of tax arising from normal business operations in the jurisdictions in which the Company operates. Any additions or changes to tax legislation, or their interpretation and application, including those with retroactive effect, could have a material adverse effect on NRG's financial condition and results of operations, including income tax provision and accruals reflected in the consolidated financial statements. The Company is subject to a 15% corporate alternative minimum tax as a result of the Inflation Reduction Act. The CAMT may lead to volatility in the Company's cash tax payment obligations, particularly in periods of significant commodity or currency variability resulting from potential changes in the fair value of derivative instruments. The Company continuously monitors and assesses proposed tax legislation that could negatively impact its business.

The Capacity Performance product into the PJM market could lead to substantial changes in capacity income and non-performance penalties, which could have a material adverse effect on NRG's results of operations, financial condition and cash flows.

PJM operates a pay-for-performance model where capacity payments are modified based on real-time generator performance. Capacity market prices are sensitive to design parameters, as well as additions of new capacity. NRG may experience substantial changes in capacity income and incur non-performance penalties, which could have a material adverse effect on NRG's results of operations, financial condition and cash flows.

NRG is subject to environmental laws that impose extensive and increasingly stringent requirements on the Company's ongoing operations, as well as potentially substantial liabilities arising out of environmental contamination. These environmental requirements and liabilities could adversely impact NRG's results of operations, financial condition and cash flows.

NRG is subject to the environmental laws of foreign and U.S., federal, state and local authorities. The Company must comply with numerous environmental laws and obtain numerous governmental permits and approvals to build and operate the Company's plants. Should NRG fail to comply with any environmental requirements that apply to its operations, the Company could be subject to administrative, civil and/or criminal liability and fines, and regulatory agencies could take other actions seeking to curtail the Company's operations. In addition, when new requirements take effect or when existing environmental requirements are revised, reinterpreted or subject to changing enforcement policies, NRG's business, results of operations, financial condition and cash flows could be adversely affected.

NRG's businesses are subject to physical, market and economic risks relating to potential effects of climate change, and policies to regulate GHG emissions and mitigate climate change which could adversely impact NRG's results of operations, financial condition and cash flows.

Fluctuations in weather and other environmental conditions, including temperature and precipitation levels, may affect consumer demand for electricity or natural gas. In addition, the potential physical effects of climate change, such as increased frequency and severity of storms, floods and other climatic events, could disrupt NRG's operations and supply chain, and cause it to incur significant costs in preparing for or responding to these effects. These or other changes in climate could lead to increased operating costs or capital expenses. NRG's customers may also experience the potential physical impacts of climate change and may incur significant costs in preparing for or responding to these efforts, including changing the fuel mix and resiliency of their energy solutions and supply.

The contribution of climate change to the frequency or intensity of weather-related events could affect NRG's operations and planning process. Climate change could also affect the availability of a secure and economical supply of water in some locations, which is essential for the continued operation of NRG's generation plants. NRG monitors water supply risk carefully. If it is determined that a water supply risk exists that could impact projected generation levels at any plant, risk mitigation efforts are identified and evaluated for implementation.

Further, demand for NRG's energy-related services could be similarly impacted by consumers' preferences or market or regulatory factors favoring energy efficiency, lower carbon energy sources or reduced electricity or natural gas usage.

NRG's GHG emissions reduction targets can be found in Item 1, *Business — Environmental Regulatory Matters*. The Company's ability to achieve these targets depends on many factors, including the ability to retire high emitting assets, ability to reduce emissions based on technological advances and innovation, and ability to source energy from less carbon intense resources. In addition, any future decarbonization efforts may increase costs, or NRG may otherwise be limited in its ability to apply them. The cost associated with NRG's GHG emissions reduction goals could be significant. Failure to achieve the

Company's emissions targets could result in a negative impact on access to and cost of capital, changing investor sentiment regarding investment in the Company or reputation harm.

Enhanced data privacy and data protection laws and regulations, or any non-compliance with such laws and regulations, could adversely affect NRG's business and financial results.

The consumer privacy landscape continues to experience momentum for greater privacy protection and reform at the state and federal level in response to precedents set forth by the Personal Information Protection and Electronic Documents Act (the "PIPEDA") of Canada and the California Consumer Privacy Act (the "CCPA"). The development and evolving nature of domestic and international privacy regulation and enforcement could impact and potentially limit how NRG collects, processes, discloses and stores personally identifiable information. California residents have increased access rights (including the right to limit the use, right of data deletion and correction and right of non-disclosure of sensitive personal information), which are enforced by a new state privacy regulator, resulting in more scrutiny of business practices and disclosures. Additional states including Virginia, Utah, Connecticut, Colorado, Nevada, Texas, New Hampshire, Nebraska and Maryland have similarly adopted enhanced data privacy legislation and patterned after the standards set forth by CCPA, including broader data access rights, with several states going a step further requiring businesses to perform data protection assessments for a variety of processing activities. The Company is also bound by contractual requirements relating to privacy and data protection, and may agree to additional contractual requirements addressing these matters from time to time. In addition, Canadian data protection laws, PIPEDA, and the privacy laws of certain Canadian provinces who have promulgated more onerous data protection laws than PIPEDA, apply to the Company's business in Canada.

As new laws and regulations are created, amended or expanded, requiring businesses to implement processes to enable customers access to their data and enhanced data protection and management standards, NRG cannot forecast with any certainty the impact that they may have on the Company's business; however, it is possible the Company may find it necessary or desirable to change certain of its business practices or to expend resources to modify its home products and services and otherwise adapt to these changes. It is possible that the Company may be unable to make such changes and modifications in a commercially reasonable manner or at all, and its ability to develop new home services and features could be limited. Any non-compliance with laws may result in proceedings or actions against the Company by governmental entities or individuals. Moreover, any inquiries or investigations, government penalties or sanctions, or civil actions by individuals may be costly to comply with, resulting in negative publicity, increased operating costs, significant management time and attention, and may lead to remedies that harm the business, including fines, demands or orders that existing business practices be modified or terminated.

NRG's retail operations and smart home services are subject to changing rules and regulations that could have a material impact on the Company's profitability.

The competitiveness of NRG's retail operations partially depends on regulatory policies that establish the structure, rules, terms and conditions upon which services are offered to retail customers. These policies can include, among other things, controls on the retail rates that NRG can charge, the imposition of additional costs on sales, restrictions on the Company's ability to sell certain types of products or ability to obtain new customers through various marketing channels and disclosure requirements. The Company's retail operations may be materially impacted by rules or regulations that allow regulated utilities to participate in competitive retail markets or own and operate facilities that could be provided by competitive market participants. Additionally, state, federal or provincial imposition of net metering or RPS programs can make it more or less expensive for retail customers to supplement or replace their reliance on grid power.

The Company's smart home services focus on transactions with residential customers, subjecting it to a variety of laws, regulations and licensing requirements governing interactions with residential consumers, including those pertaining to privacy and data security, consumer financial and credit transactions, home improvements, warranties and door-to-door solicitation. In certain jurisdictions, the Company is required to obtain licenses or permits to comply with standards governing marketing and sales efforts, installation of equipment or servicing of customers and monitoring station employee selection and training. Increased regulation of matters relating to interactions with residential consumers could require modification to the Company's home services operations and the incurrence of additional expenses. Further, any expansion of the scope of products or services into new markets may require additional licenses and expenditures to otherwise maintain compliance with additional laws, regulations or licensing requirements. These laws and regulations, as well as their interpretation, and any new laws, regulations or licensing requirements could negatively affect the Company's ability to acquire new residential customers. Any of these measures could increase costs for providing, or reduce customer satisfaction with respect to, smart home services.

The Federal Trade Commission ("FTC") and the Federal Communications Commission have issued regulations that restrict direct-to-home marketing, telemarketing, email marketing and other sales practices, including limitations on methods of communication, requirements to maintain a "do not call" list, cancellation rights and required training for personnel to comply with these restrictions. Any noncompliance, or alleged noncompliance, of applicable regulations by the Company, third-party vendors used for marketing, telemarketing or lead generation activities or independent, third-party authorized dealers of smart

home services could result in private rights of actions or enforcement actions for civil or criminal penalties. Changes in regulations or interpretations that further restrict lead generating activities also could result in a reduction in the number of new smart home services customers.

The Company's smart home business exposes it to risks of liability for the acts or omissions of its employees, including with respect to sales practices.

Activities in connection with sales efforts by employees, independent contractors, and other agents, including predatory door-to-door sales tactics and fraudulent misrepresentations, have in the past subjected it to, and could in the future subject the Company to, governmental investigations and class action lawsuits for, among others, false advertising and deceptive trade practice damage claims. Any litigation or regulatory proceedings resulting from such activities could adversely impact the Company's business, financial condition, results of operations, and cash flows.

The Company is subject to various risks in connection with Vivint Smart Home's ongoing settlement administration process involving the FTC, and may be subject to other FTC actions in the future.

In 2021, Vivint Smart Home entered into a settlement with the FTC where Vivint Smart Home agreed to implement various compliance-related measures and pay a penalty or fine. The settlement requires an initial assessment and thereafter biennial assessments by an independent third-party assessor of Vivint Smart Home's compliance programs and for the assessor to provide a report to the FTC staff on ongoing compliance with the settlement. Although Vivint Smart Home took action to enhance its compliance programs, these and other measures that the Company may take in the future may not be successful. If any assessments identify deficiencies in the Company's efforts to comply, and should the FTC determine that Vivint Smart Home is not in full compliance with the settlement, the FTC could take further action, such as seeking judicial remedies for any noncompliance, and Vivint Smart Home could be subject to additional sanctions, fines, penalties and restrictions on its smart home operations. In addition, the filing of an application with the court for noncompliance with the settlement could lead to regulatory actions by other agencies or private litigation, which could impact Vivint Smart Home's ability to obtain regulatory approvals necessary to carry out present or future plans and operations, and result in negative publicity.

The Company's international operations are exposed to political and economic risks, commercial instability and events beyond the Company's control in the countries in which it operates, which risks may negatively impact the Company's business.

The Company's international operations depend on products manufactured, purchased and sold in the U.S. and internationally. In some cases, these countries have greater political and economic volatility and greater vulnerability to infrastructure labor, and supply chain disruptions than in NRG's other markets. Operating a business in a number of different regions and countries exposes the Company to a number of risks, including: imposition of burdensome tariffs or quotas, multiple and potentially conflicting laws, regulations and policies that are subject to change, imposition of currency restrictions on repatriation of earnings or other restraints, national and international conflict, including terrorist acts and political and economic instability or civil unrest that may severely disrupt economic activity in affected countries and result in increased cost. The occurrence of one or more of these events may negatively impact the Company's business, results of operations and financial condition.

Rates and terms for service of certain residential and commercial customers in Alberta are subject to regulatory review and approval.

The Company owns Direct Energy Regulated Services, which serves as a regulated rate supplier for residential and commercial energy customers in portions of the province of Alberta. It is required to engage in regulatory approval proceedings as a part of the process of establishing the terms and rates for sales of power and natural gas. These proceedings typically involve multiple parties, including governmental bodies and officials, consumer advocacy groups and various consumers of energy, who have differing concerns but also have the common objective of limiting rate increases or even reducing rates. Decisions are subject to appeal, potentially leading to additional uncertainty associated with the approval proceedings. The potential duration of such proceedings creates a risk that rates ultimately approved by the applicable regulatory body may not be sufficient for the Company to recover its costs by the time the rates become effective. Established rates are also subject to subsequent reviews by regulators, whereby various portions of rates could be adjusted, subject to refund or disallowed. In certain instances, the Company could agree to negotiated settlements related to various rate matters and other cost recovery elements. These settlements are subject to regulatory approval. The ultimate outcome and timing of regulatory rate proceedings have a significant effect on the Company to recover its costs or earn an adequate return. In addition, subsequent legislative or regulatory action could alter the terms on which the regulated business operates and future earnings could be negatively impacted. The Company also operates a competitive energy supply business in Alberta that is not subject to rate regulation and is subject to stringent requirements to segregate operations and information relating to the competitive business from the regulated business. Failure to comply with these and other requirements on the business could subject the Company's regulated and competitive businesses in Alberta to fines, penalties, and restrictions on the ability to continue business.

Risks Related to Economic and Financial Market Conditions and the Company's Indebtedness

NRG's level of indebtedness could adversely affect its ability to raise additional capital to fund its operations or return capital to stockholders. It could also expose it to the risk of increased interest rates and limit its ability to react to changes in the economy or its industry.

NRG's substantial amount of debt could have negative consequences, including:

- increasing NRG's vulnerability to general economic and industry conditions;
- requiring a substantial portion of NRG's cash flow from operations be used to pay principal and interest on its indebtedness, which reduces NRG's ability to pay dividends or fund its operations, capital expenditures and future business opportunities;
- limiting NRG's ability to enter into long-term power sales or fuel purchases, which require credit support;
- adversely impacting NRG's credit rating, which could increase borrowing costs;
- limiting NRG's ability to obtain additional financing for working capital, including collateral postings, capital expenditures, debt service requirements, acquisitions and general corporate purposes;
- limiting NRG's ability to adjust to changing market conditions and placing it at a competitive disadvantage compared to its competitors, who may have less debt; and
- exposing NRG to the risk of increased interest rates because certain of its borrowings are at variable rates of interest.

The Company's debt agreements contain financial and other restrictive covenants that may limit the Company's ability to return capital to stockholders, including by paying dividends, or otherwise engage in activities that may be in its long-term best interests. NRG's failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of such indebtedness, which in turn could cause a cross default to NRG's other indebtedness. NRG's assets and available cash balances may not be sufficient to fully repay all outstanding indebtedness if accelerated upon an event of default. If NRG is unable to repay, refinance, or restructure its indebtedness as required, or amend the covenants contained in those agreements, the lenders or other creditors may be entitled to obtain a lien or institute foreclosure proceedings against its assets, which could have a material adverse effect on its business, results of operations and financial condition. In addition, the Company's Revolving Credit Facility and sustainability-linked bonds include a sustainability-linked metric, which could result in increased interest expense for the Company if the sustainability metrics set forth therein are not achieved. Furthermore, financial and other restrictive covenants contained in any subsidiary or project level debt may limit the ability of NRG to receive distributions from such subsidiary.

In addition, NRG's ability to arrange financing, either at the corporate level, a non-recourse project-level subsidiary or otherwise, 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 NRG, its partners and the regional wholesale power markets, NRG's financial performance and the financial performance of its subsidiaries, NRG's level of indebtedness and compliance with covenants in debt agreements, maintenance of acceptable credit ratings, cash flow and provisions of tax and securities laws that may impact raising capital.

NRG's ability to meet its payment obligations under its debt agreements is dependent on its ability to generate significant cash flows or obtain additional capital in the future. This, to some extent, is subject to market, economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond its control. NRG may not be successful in obtaining additional capital for these or other reasons. The failure to obtain additional capital on terms acceptable to NRG, or at all, from time to time may have a material adverse effect on its business and operations.

NRG's outstanding preferred stock is senior to its common stock, and a failure to pay dividends on its preferred stock will prohibit the payment of dividends on its common stock.

NRG has outstanding 650,000 shares of Series A Preferred Stock, with a \$1,000 liquidation preference per share. The Series A Preferred Stock is senior to NRG's common stock in right of payment of dividends and other distributions and could adversely affect NRG's ability to declare or pay dividends or distributions on its common stock. In the event of NRG's voluntary or involuntary liquidation, winding-up or dissolution, the holders of Series A Preferred Stock must receive their \$1,000 per share, plus accumulated but unpaid dividends, prior to any distributions to holder of common stock. NRG must be current on dividends payable to holders of Series A Preferred Stock before any dividends can be paid on its common stock.

Whenever dividends on any shares of Series A Preferred Stock have not been declared and paid for the equivalent of three or more dividend payments, whether or not for consecutive dividend periods, the number of directors on the Company's Board of Directors will be increased by two, and the holders of Series A Preferred Stock will have the right to elect two members of the Company's Board of Directors to fill such newly created openings.

Adverse economic conditions could adversely affect NRG's business, financial condition, results of operations and cash flows.

Adverse economic conditions, including inflation, and declines in wholesale energy prices, partially resulting from adverse economic conditions, may impact NRG's results of operations, including by reducing the demand for energy commodities. In general, economic and commodity market conditions will continue to impact NRG's unhedged future energy margins, liquidity, earnings growth and overall financial condition. Macroeconomic factors may also impact consumer spending, which could adversely affect the Company's smart home services, and increase the Company's costs for such products and services, which it may not be able to pass on to customers. In addition, adverse economic conditions, declines in wholesale energy prices, reduced demand for energy and other factors may negatively impact the trading price of NRG's common stock and impact forecasted cash flows, which may require NRG to evaluate its goodwill and other long-lived assets for impairment. Any such impairment could have a material impact on NRG's financial condition.

Goodwill and other intangible assets that NRG has recorded in connection with its acquisitions are subject to impairment evaluations and, as a result, the Company could be required to write off some or all of this goodwill and other intangible assets, which may adversely affect the Company's financial condition and results of operations.

Goodwill is not amortized but is reviewed annually or more frequently for impairment. Other intangibles are also reviewed at least annually or more frequently, if certain conditions exist, and are amortized. Any reduction in or impairment of the value of goodwill or other intangible assets will result in a charge against earnings, which could materially adversely affect NRG's reported results of operations and financial position in future periods.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Annual Report on Form 10-K of NRG Energy, Inc., or NRG or the Company, includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. The words "believes," "projects," "anticipates," "plans," "expects," "intends," "estimates," "should," "forecasts," 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 NRG'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:

- NRG's ability to obtain and maintain retail market share;
- General economic conditions, changes in the wholesale power and gas markets and fluctuations in the cost of fuel;
- Volatile power and gas supply costs and demand for power and gas, including the impacts of weather;
- Hazards customary to the power production industry and power generation operations, such as fuel and electricity price volatility, unusual weather 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 NRG may not have adequate insurance to cover losses as a result of such hazards;
- The effectiveness of NRG's risk management policies and procedures and the ability of NRG's counterparties to satisfy their financial commitments;
- NRG's ability to enter into contracts to sell power or gas and procure fuel on acceptable terms and prices;
- NRG's ability to successfully integrate, realize cost savings and manage any acquired businesses;
- NRG's ability to engage in successful acquisitions and divestitures, as well as other mergers and acquisitions activity;
- NRG's ability to successfully complete the development and construction new generation projects in a timely and cost effective manner;
- Cyber terrorism and cybersecurity risks, data breaches or the occurrence of a catastrophic loss and the possibility that NRG may not have sufficient insurance to cover losses resulting from such hazards or the inability of NRG's insurers to provide coverage;
- Operational and reputational risks related to the use of AI and the adherence to developing laws and regulations related to the use of AI;
- Counterparties' collateral demands and other factors affecting NRG's liquidity position and financial condition;
- NRG's ability to operate its businesses efficiently and generate earnings and cash flows from its asset-based businesses in relation to its debt and other obligations;
- The liquidity and competitiveness of wholesale markets for energy commodities;
- Changes in law, including judicial and regulatory decisions;
- Government regulation, including changes in market rules, rates, tariffs and environmental laws;
- NRG's ability to develop and innovate new products, as retail and wholesale markets continue to change and evolve;
- Price mitigation strategies and other market structures employed by ISOs or RTOs that result in a failure to adequately and fairly compensate NRG's generation units;
- NRG's ability to mitigate forced outage risk;
- NRG's ability to borrow funds and access capital markets, as well as NRG's substantial indebtedness and the possibility that NRG may incur additional indebtedness in the future;
- Operating and financial restrictions placed on NRG and its subsidiaries that are contained in NRG's corporate credit agreements, and in debt and other agreements of certain of NRG subsidiaries and project affiliates generally;
- The ability of NRG and its counterparties to develop and build new power generation facilities;
- NRG's ability to implement its strategy of finding ways to meet the challenges of climate change, clean air and protecting natural resources, while taking advantage of business opportunities;
- NRG's ability to increase cash from operations through operational and market initiatives, corporate efficiencies, asset strategy, and a range of other programs throughout NRG to reduce costs or generate revenues;
- NRG's ability to successfully evaluate investments and achieve intended financial results in new business and growth initiatives; and
- NRG's ability to develop and maintain successful partnering relationships as needed.

In addition, unlisted factors may present significant additional obstacles to the realization of forward-looking statements. Forward-looking statements speak only as of the date they were made and NRG undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise except as otherwise required by applicable laws. The foregoing factors that could cause NRG'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 1C — Cybersecurity

Risk Management and Strategy

The Company leverages a comprehensive, multi-tiered cybersecurity strategy to manage cybersecurity risk based on criteria established by the NIST Cybersecurity Framework. As part of its cybersecurity strategy, the Company utilizes a range of industry and regulatory standards including, but not limited to, NERC-CIP, Payment Card Industry Data Security Standard, and IoT Security Assurance Framework. Compliance with NERC-CIP standards is mandated for entities involved in power generation, transmission, and distribution by regulatory bodies responsible for protecting critical infrastructure within the United States. NRG engages certified external assessors to ensure compliance with these standards.

The Company's strategy seeks to align underlying processes not only with industry standards but also mirror best practices among peer organizations. The strategy ensures a standardized method across all activities at NRG allowing for consistent recognition, assessment and potential mitigation of significant cybersecurity risks. To further the strategy, the Company established the NRG Cybersecurity Integration Center ("CIC") which is composed of experienced team members from across cybersecurity disciplines with relevant educational and industry experience. The CIC provides the following functions to the Company: cyber governance, operations, detection and response, engineering, testing, cyber risk management (including third-party risks), compliance, training and awareness, and reporting. The CIC utilizes advanced continuous monitoring systems and investigative techniques for real-time threat detection. The systematic monitoring approach allows for risk classification and prioritization based on potential impacts, and facilitates targeted resource allocation according to risk severity. The Company conducts regular penetration testing to proactively identify vulnerabilities and enhance its defense measures. The Company engages third-party assessors to gain comprehensive insights into its cyber risk profile.

The Company relies on third-party service providers in the normal course of business. The Company has established a comprehensive approach to identify and manage cybersecurity risks associated with providers including, but not limited to, rigorous due diligence and assessments of third-party service providers' cybersecurity protocols before engagement, requirements relating to information handling, incident notification and assessment against the Company's cybersecurity requirements. Furthermore, the Company has implemented additional control measures and procedures in business processes to enable continuous risk identification and assessment, and to support monitoring mechanisms to oversee and manage supplier cybersecurity practices.

As of December 31, 2024, the Company is not aware of any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, that have materially affected or are reasonably likely to have a material effect on NRG's business strategy, results of operations and financial condition. Despite efforts to maintain processes which mitigate cybersecurity risks, there is no guarantee that such risks may not have a material effect on NRG's business strategy, results of operations, and financial condition in the future. For additional information on cybersecurity risks the Company may face, see Item 1A — Risk Factors — *"The operation of the Company's businesses is subject to advanced persistent cyber-based security threats and integrity risk. Attacks on NRG's infrastructure that breach cyber/data security measures could expose the Company to significant liabilities, reputational damage, regulatory action, and disrupt business operations, which could have a material adverse effect"*.

Governance

Management

The Chief Information Security Officer ("CISO") is the head of cybersecurity for the Company and leads the CIC. The CISO has decades of professional experience, education, and certification in security analysis, design, implementation, and management, with a particularly strong background in technical vulnerability assessment and program development. Within various roles throughout the CISO's career, he has overseen information assurance and cybersecurity efforts, including critical infrastructure protection in government agencies and industry.

At least twice per year, the CISO provides comprehensive updates to the Board of Directors on cybersecurity and any recent developments impacting the Company. These updates include, among other items:

- Incident reports and developments from any cybersecurity events;
- Current cybersecurity landscape and emerging cybersecurity threats, with a particular emphasis on Company and industry-specific threats; and
- Status of ongoing initiatives to strengthen the Company's cybersecurity program.

In addition, the CISO regularly informs other members of senior management, including the President and CEO, of all aspects related to cybersecurity risks and incidents. This is intended to ensure that the highest levels of management remain updated on the cybersecurity risk preparedness and potential risks facing the Company. Furthermore, significant cybersecurity matters and strategic risk management decisions are escalated to the Board of Directors ensuring that they have comprehensive oversight and can provide guidance on critical cybersecurity issues.

In preparation for a potential cybersecurity incident, the Company has implemented structured processes and procedures aligned with the NIST framework. This framework provides a foundation for a systematic and consistent approach to preparing for, identifying, containing, eradicating, and recovering from incidents. The effectiveness of these protocols is routinely verified through tabletop exercises involving relevant teams and Company leadership. In accordance with the Company's process and procedures, incidents which may have a material impact on the Company are promptly referred to senior leadership and the Board of Directors for review and appropriate determination.

Board of Directors

The Board of Directors is primarily responsible for the risk oversight of the Company, and has delegated oversight of risks related to cybersecurity to the Finance and Risk Management ("FARM") Committee of the Board. The FARM Committee regularly reports on its activities to the Board of Directors after each meeting. The FARM Committee, as well as the overall Board of Directors, is composed of members with diverse expertise, including risk management, incident response and technology. The Board of Directors is aware of the critical nature of managing risks associated with cybersecurity threats and has worked with the Company's management to establish comprehensive oversight mechanisms to ensure effective cybersecurity governance.

The FARM Committee and the Board of Directors receive updates on any significant developments in the cybersecurity domain, seeking to ensure that the Board of Director's oversight is proactive and responsive. The Board of Directors remains involved in ensuring that cybersecurity considerations are integrated into the Company's broader strategic objectives. Pursuant to the charter of the FARM Committee, the FARM Committee's responsibilities include an annual review of the Company's cybersecurity program and the effectiveness of its risk management strategies. This review is intended to help identify areas for improvement and ensure the alignment of cybersecurity efforts with the overall risk management framework.

Item 2 — Properties

Listed below are descriptions of NRG's interests in facilities, operations and/or projects owned or leased as of December 31, 2024. The rated MW capacity figures provided represent nominal summer MW capacity of power generated. Net MW capacity is adjusted for the Company's owned or leased interest as of December 31, 2024. The Company believes its existing facilities, operations and/or projects are suitable for the conduct of its business. The following table summarizes NRG's power production and cogeneration facilities by region:

Name of Facility	Power Market	Plant Type	Primary Fuel	Location	Rated MW Capacity ^(a)	Net MW Capacity ^(b)	% Owned
Texas							
Cedar Bayou	ERCOT	Fossil	Natural Gas	TX	1,494	1,494	100.0
Cedar Bayou 4	ERCOT	Fossil	Natural Gas	TX	504	252	50.0
Greens Bayou	ERCOT	Fossil	Natural Gas	TX	327	327	100.0
Limestone	ERCOT	Fossil	Coal	TX	1,660	1,660	100.0
San Jacinto	ERCOT	Fossil	Natural Gas	TX	160	160	100.0
T.H. Wharton	ERCOT	Fossil	Natural Gas	TX	1,002	1,002	100.0
W.A. Parish	ERCOT	Fossil	Coal	TX	2,514	2,514	100.0
W.A. Parish	ERCOT	Fossil	Natural Gas	TX	1,118	1,118	100.0
Total Texas					8,779	8,527	
East							
Chalk Point	PJM	Fossil	Natural Gas	MD	80	80	100.0
Fisk	PJM	Fossil	Oil	IL	171	171	100.0
Indian River ^(c)	PJM	Fossil	Coal	DE	410	410	100.0
Indian River	PJM	Fossil	Oil	DE	16	16	100.0
Powerton ^(d)	PJM	Fossil	Coal	IL	1,538	1,538	100.0
Vienna	PJM	Fossil	Oil	MD	167	167	100.0
Waukegan	PJM	Fossil	Oil	IL	101	101	100.0
Total East					2,483	2,483	
West/Services/Other							
Cottonwood	MISO	Fossil	Natural Gas	TX	1,139	1,139	— ^(e)
Gladstone		Fossil	Coal	AUS	1,613	605	37.5
Ivanpah ^(f)	CAISO	Renewable	Solar	CA	385	210	54.5
Midway-Sunset	CAISO	Fossil	Natural Gas	CA	226	113	50.0
Stadiums and Other		Renewable	Solar	various	4	4	100.0
Total West/Services/Other					3,367	2,071	
Total Fleet					14,629	13,081	

(a) MW capacity of the facility without taking into account NRG ownership percentage

(b) Actual capacity, adjusted for ownership interest, can vary depending on factors including weather conditions, operational conditions, and other factors. Additionally, ERCOT and PJM require periodic demonstration of capability, and the capacity may vary individually and in the aggregate from time to time

(c) The Company previously announced the shut down of the Indian River facility. However, PJM identified reliability impacts resulting from the proposed deactivation and Indian River Unit 4 retired on February 23, 2025

(d) Powerton is projected to close by December 31, 2028 to comply with ELG regulations

(e) NRG leases 100% interests in the Cottonwood facility through a facility lease agreement expiring in May 2025 and operates the Cottonwood facility

(f) On January 17, 2025, PG&E filed an advice letter to the CPUC seeking approval of a termination agreement between the utility and Solar Partners II, LLC and Solar Partners VIII, LLC, which include NRG's ownership interests. If approved by the CPUC, this would result in the termination of PG&E's PPAs with Ivanpah Units 1 and 3

NRG owns several real properties and facilities related to its generation assets, other vacant real property unrelated to its generation assets, and properties not used for operational purposes. NRG believes it has satisfactory title to its plants and facilities in accordance with standards generally accepted in the electric power industry, subject to exceptions that, in the Company's opinion, would not have a material adverse effect on the use or value of its portfolio.

NRG leases its operational and corporate headquarters in Houston, Texas, its financial and commercial corporate offices in Princeton, New Jersey, its smart home corporate offices in Provo and Lehi, Utah, as well as its retail operations offices, smart home monitoring stations, call centers, warehouses and various other office space.

Item 3 — Legal Proceedings

See Item 15 — Note 22, *Commitments and Contingencies*, to the Consolidated Financial Statements for discussion of the material legal proceedings to which NRG is a party.

Item 4 — Mine Safety Disclosures

There have been no events that are required to be reported under this Item.

PART II

Item 5 — Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information and Holders

NRG's common stock trades on the New York Stock Exchange under the symbol "NRG". NRG's authorized capital stock consists of 500,000,000 shares of common stock and 10,000,000 shares of preferred stock. A total of 25,000,000 shares of the Company's common stock are authorized for issuance under the NRG LTIP, and a total of 17,500,000 shares of common stock are authorized for issuance under the Vivint LTIP. For more information about the LTIPs, refer to Item 12 — *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters* and Item 15 — Note 20, *Stock-Based Compensation*, to the Consolidated Financial Statements.

As of January 31, 2025, there were 14,339 common stockholders of record.

The Company's long-term capital allocation framework targets to return approximately 80% of excess cash to shareholders and invest 20% in growth initiatives, after debt reduction. The Company expects to return the capital to shareholders through share repurchases and dividends on its common stock.

In 2024, the Company increased the annual dividend on its common stock to \$1.63 per share, representing an 8% increase from 2023. Consistent with its capital allocation framework, the Company further increased the annual dividend on its common stock by 8% to \$1.76 per common share beginning in the first quarter of 2025. The long-term capital allocation policy targets an annual dividend growth rate of 7-9% per common share.

Issuer Purchases of Equity Securities

NRG engages in share repurchase programs with the goal of returning excess cash to shareholders. The share repurchase plan permits the execution of the plan through open-market purchases, private transactions, accelerated share repurchases and other similar transactions. The timing, price and volume of repurchases is based on a number of factors, including available capital, market conditions, and compliance with associated laws and regulations.

In June 2023, the Company announced that the Board of Directors increased the share repurchase authorization of its common stock to \$2.7 billion to be executed through 2025. In October 2024, the Board of Directors authorized an additional \$1.0 billion for shares repurchases as part of the existing share repurchase authorization. Through January 31, 2025, the Company completed \$2.2 billion of share repurchases under the \$3.7 billion authorization. For further information regarding share repurchases, see Item 15 — Note 15, *Capital Structure* in this Annual Report on Form 10-K.

The table below sets forth the information with respect to purchases made by or on behalf of NRG or any "affiliated purchaser" (as defined in Rule 10b-18(a)(3) under the Exchange Act) of NRG's common stock during the quarter ended December 31, 2024:

For the three months ended December 31, 2024	Total Number of Shares Purchased	Average Price Paid per Share ^(a)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in millions) ^(b)
Month #1 (October 1, 2024 to October 31, 2024)	2,524,323	\$ 89.23	2,524,323	\$ 2,006
Month #2 (November 1, 2024 to November 30, 2024)	1,612,869	\$ 94.94	1,612,869	\$ 1,853
Month #3 (December 1, 2024 to December 31, 2024)	2,406,947	\$ 94.78	2,406,947	\$ 1,625
Total at December 31, 2024	6,544,139	\$ 92.68	6,544,139	

(a) The average price paid per share excludes excise taxes owed and commissions per share paid in connection with the open market share repurchases

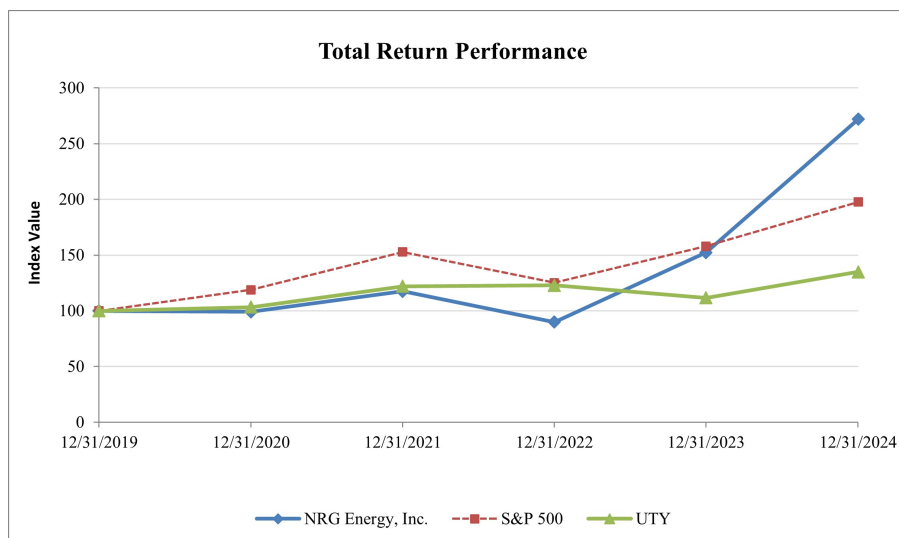
(b) Includes commissions paid in connection with the open market share repurchases

Stock Performance Graph

The performance graph below compares the cumulative total stockholder return on NRG's common stock for the period December 31, 2019 through December 31, 2024, with the cumulative total return of the Standard & Poor's 500 Composite Stock Price Index ("S&P 500") and the Philadelphia Utility Sector Index ("UTY").

The performance graph shown below is being furnished and compares each period assuming that \$100 was invested on December 31, 2019, in each of the common stock of NRG, the stocks included in the S&P 500 and the stocks included in the UTY, and that all dividends were reinvested.

Comparison of Cumulative Total Return



	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
NRG Energy, Inc.	\$ 100.00	\$ 99.16	\$ 117.55	\$ 89.97	\$ 152.25	\$ 271.00
S&P 500	100.00	118.76	152.84	125.16	158.07	197.00
UTY	100.00	103.22	122.05	122.84	111.58	134.00

Item 6 — Reserved

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

The discussion and analysis below has been organized as follows:

- Executive Summary, including the business environment in which the Company operates, a discussion of regulation, weather, competition and other factors that affect the business, and other significant events that are important to understanding the results of operations and financial condition;
- Results of operations for the years ended December 31, 2024 and December 31, 2023, including an explanation of significant differences between the periods in the specific line items of NRG's Consolidated Statements of Operations;
- Liquidity and capital resources including liquidity position, financial condition addressing credit ratings, material cash requirements and commitments, and other obligations; and
- Critical accounting estimates that are most important to both the portrayal of the Company's financial condition and results of operations, and require management's most difficult, subjective, or complex judgments.

As you read this discussion and analysis, refer to NRG's Consolidated Statements of Operations in this Annual Report on Form 10-K, which present the results of the Company's operations for the years ended December 31, 2024 and 2023, and also refer to Item 1 — Business to this Annual Report on Form 10-K for more detail discussion about the Company's business.

Beginning in the third quarter of 2024, the Company is recording the amortization of capitalized contracts costs within depreciation and amortization. This change, along with additional financial statement disclosures, is meant to address investor inquiries by enhancing transparency to easier match expenses with revenues. The Company previously recorded amortization of capitalized contract costs related to fulfillment in cost of operations and amortization of capitalized contract costs related to customer acquisition primarily in selling, general and administrative costs in the consolidated statements of operations. Amounts for prior years were adjusted for comparative purposes. See Item 15 — Note 2, *Summary of Significant Accounting Policies* for further detail. The adjustments had no impact on the Company's total operating costs and expenses, and total cash flows.

The Company has elected to omit discussion of the earliest of the three years covered by the consolidated financial statements presented. A discussion and analysis of fiscal year 2022 may be found in Part II, Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations of the Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 28, 2024, and is not materially impacted by the adjustments noted above.

The following discussion and analysis also contains forward-looking statements, including, without limitation, statements relating to NRG's plans, strategies, objectives, expectations, intentions, and resources. Such forward-looking statements should be read in conjunction with the disclosures under Item 1A — *Risk Factors* of this Annual Report on Form 10-K.

Executive Summary

NRG Energy, Inc., or NRG or the Company, is a leading energy and smart home company fueled by market-leading brands, proprietary technologies and complementary sales channels. Across the U.S. and Canada, NRG delivers innovative, sustainable solutions, predominately under the brand names such as NRG, Reliant, Direct Energy, Green Mountain Energy, and Vivint, while also advocating for competitive energy markets and customer choice. The Company has a customer base that includes approximately 8 million residential customers (comprised of 6 million retail energy customers and 2 million smart home customers) in addition to commercial, industrial, and wholesale customers, supported by approximately 13 GW of generation as of December 31, 2024.

Business Environment

The industry dynamics and external influences affecting the Company, its businesses, and the retail energy and power generation industry in 2024 and for the future medium term include:

Market Dynamics — The price of natural gas plays an important role in setting the price of electricity in many of the regions where NRG operates. Natural gas prices are driven by variables including demand from the industrial, residential, and electric sectors, productivity across natural gas supply basins, costs of natural gas production, changes in pipeline infrastructure, global liquefied natural gas demand, exports of natural gas, and the financial and hedging profile of natural gas customers and producers. In 2024, the average natural gas price at Henry Hub was \$2.27 per MMBtu compared to \$2.74 per MMBtu in 2023, representing a decrease of 17%.

NRG may experience impacts to gross margins due to significant, rapid changes in current natural gas prices, the impact those prices have on power prices, and the lag in its ability to make a corresponding adjustment to the retail rates it charges customers on term and month to month contracts. The Company hedges its load commitments in order to mitigate the impact of changes in commodity prices, and as a result, these gross margin impacts would be realized in future periods until it is able to make the corresponding adjustments to the retail customer rates.

The relative price of natural gas as compared to coal and prevailing power prices are the primary driver of coal demand. Coal commodity prices remained relatively flat in 2024.

Electricity Prices — The price of electricity is a key determinant of the profitability of the Company. Many variables such as the price of different fuels, weather, load growth and unit availability all coalesce to impact the final price for electricity and the Company's profitability. An increase in supply cost volatility in the competitive retail markets may result in smaller companies choosing to exit the market, which may result in further consolidation in the competitive retail space. The following table summarizes average on-peak power prices for each of the major markets in which NRG operates.

Region	Average On-Peak Power Price (\$/MWh)			
	Year Ended December 31,		2024 vs 2023	
	2024	2023	Change %	
Texas				
ERCOT - Houston ^(a)	\$ 32.05	\$ 74.32	(57) %	
ERCOT - North ^(a)	30.71	72.89	(58) %	
East				
NYJ/NYC ^(b)	45.25	38.95	16 %	
NEPOOL ^(b)	46.59	41.36	13 %	
COMED (PJM) ^(b)	31.86	32.72	(3) %	
PJM West Hub ^(b)	40.75	39.34	4 %	
West				
CAISO - SP15 ^(b)	29.95	60.17	(50) %	
MISO - Louisiana Hub ^(b)	30.26	33.64	(10) %	

(a) Average on-peak power prices based on real time settlement prices as published by the respective ISOs

(b) Average on-peak power prices based on day-ahead settlement prices as published by the respective ISOs

Load Growth — The electric industry is expected to experience a surge in demand driven primarily by new manufacturing, industrial and data center facilities (inclusive of GenAI). The U.S. Energy Information Administration's 2023 Annual Energy Outlook, combined with external forecasts of GenAI, shows the potential for 500 TWh of incremental load across the U.S. through 2030, as compared to 2023. ERCOT's current long term load forecast shows peak demand increasing from 86 GW in 2024 to 137 GW in 2028. This load growth will require significant planning and construction of new generation and transmission.

Increased Awareness of, and Action to Combat, Climate Change — Diverse groups of stakeholders, including investors, asset managers, financial institutions, non-government organizations, industry coalitions, individual companies, consumer groups and academic institutions, are increasingly engaged in efforts to limit global warming in the post-industrial era to 1.5 degrees Celsius. As a result, policymakers and regulators at regional, national, sub-national and local levels of government, both in the U.S. and other parts of the world, are increasingly focused on actions to combat climate change.

NRG actively monitors climate change related developments that could impact its business and regularly engages with a diverse set of stakeholders on these issues. Such engagement helps the Company identify and pursue potential opportunities both to decarbonize its business and better serve its customers. NRG is committed to providing transparent disclosures of its climate risks and opportunities to stakeholders.

Lower Carbon Infrastructure Development — Policy mechanisms at the state and federal level, including production and investment tax credits, cash grants, loan guarantees, accelerated depreciation tax benefits, RPS, and carbon trading plans, have supported and continue to support the development of renewable generation, demand-side and smart grid, and other lower carbon infrastructure technologies. According to ERCOT, 43% of 2024 energy consumption in the ERCOT market was generated from carbon emission-free resources, with wind power contributing 24%. In addition, as subsidies and incentives contribute to increases in renewable power sources, customer awareness and preferences are shifting toward sustainable solutions. Increased demand for sustainable energy products from both residential and commercial customers creates opportunities for diversified product offerings in competitive retail markets.

Digitization and Customization — The electric industry is experiencing major technological changes in the way power is distributed and consumed by end-use customers. The electric grid is shifting from a centralized analog system, where power is generated from limited sources and flows in one direction, to a decentralized multidirectional system, where power can be generated from a number of distributed resources and stored or dispatched on an as-needed basis. In addition, customers are seeking new ways to engage with their power providers. Technologies like smart thermostats, smart appliances and electric vehicles are giving individuals more choice and control over their electricity usage. Power providers are starting to engage with

customers who have transitioned to smart homes with new offerings, including but not limited to behind-the-meter demand response, or virtual power plant products. Companies with large customer bases in competitive marketplaces are poised to create additional engagement with customers to help further integrate their smart home into their daily lives.

Weather — Weather conditions in the regions of the U.S. in which NRG conducts business influence the Company's financial results. Weather conditions can affect the supply and demand for electricity and fuels and may also impact the availability of the Company's generating assets. Changes in energy supply and demand may impact the price of these energy commodities in both the spot and forward markets, which may affect the Company's results in any given period. Typically, demand for and the price of electricity is higher in the summer and the winter seasons, when temperatures and resultant demand are more extreme. The demand for and price of natural gas is also generally higher in the winter. However, all regions of the U.S. typically do not experience extreme weather conditions at the same time, thus NRG's operations are typically not exposed to the effects of extreme weather in all parts of its business at once.

Other Factors — A number of other factors significantly influence the level and volatility of prices for energy commodities and related derivative products for NRG's business. These factors include:

- seasonal, daily and hourly changes in demand;
- extreme peak demands;
- performance of renewable generation;
- available supply resources;
- transportation and transmission availability and reliability within and between regions;
- location of NRGs generating facilities relative to the location of its load-serving opportunities;
- procedures used to maintain the integrity of the physical electricity system during extreme conditions; and
- changes in the nature and extent of federal and state regulations.

These factors can affect energy commodity and derivative prices in different ways and to different degrees. These effects may vary throughout the country as a result of regional differences in:

- weather conditions;
- market liquidity;
- capability and reliability of the physical electricity and gas systems;
- local transportation systems; and
- the nature and extent of electricity deregulation.

Environmental Matters, Regulatory Matters and Legal Proceedings — Details of environmental matters are presented in Item 15 — Note 24, *Environmental Matters*, to the Consolidated Financial Statements and Item 1 — Business, *Environmental Matters*. Details of regulatory matters are presented in Item 15 — Note 23, *Regulatory Matters*, to the Consolidated Financial Statements and Item 1 — Business, *Regulatory Matters*. Details of legal proceedings are presented in Item 15 — Note 22, *Commitments and Contingencies*, to the Consolidated Financial Statements. Some of this information relates to costs that may be material to the Company's financial results.

Significant Events

The following significant events occurred during 2024 and through the filing date, as further described within this Management's Discussion and Analysis and the Consolidated Financial Statements:

Dispositions

On September 16, 2024, the Company closed on the sale of its 100% ownership in the Airtron business unit. Proceeds of \$500 million were reduced by working capital and other adjustments of \$20 million, resulting in net proceeds of \$480 million. The Company recorded a gain on the sale of \$204 million within the West/Services/Other region of operations.

Capital Allocation

In October 2024, the Board of Directors authorized an additional \$1.0 billion for share repurchases as part of the existing share repurchase authorization, for a total of \$3.7 billion. As of January 31, 2025, \$1.5 billion is remaining under the \$3.7 billion authorization.

In the first quarter of 2024, NRG increased the annual common stock dividend to \$1.63 from \$1.51 per share, representing an 8% increase from 2023. Beginning in the first quarter of 2025, NRG increased the annual common stock dividend by 8% to \$1.76 per share. The Company expects to target an annual common stock dividend growth rate of 7-9% per share in subsequent years.

On April 16, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Eighth Amendment to the Second Amended and Restated Credit Agreement (the “Eighth Amendment”) with, among others, Citicorp North America, Inc., as administrative agent (the “Agent”) and as collateral agent, and certain financial institutions, as lenders, which amended the Company’s Second Amended and Restated Credit Agreement, dated as of June 30, 2016 (as amended, restated, supplemented and/or otherwise modified from time to time, the “Credit Agreement”), in order to (i) establish a new Term Loan Facility with borrowings of \$875 million in aggregate principal amount (the “Existing Term Loan B Facility” and the loans thereunder, the “Existing Term Loans”) and (ii) make certain other modifications to the Credit Agreement as set forth therein. The proceeds from the Existing Term Loans were used to repay a portion of the Company’s Convertible Senior Notes, all of the Company’s 3.750% senior secured first lien notes due 2024 and for general corporate purposes. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

On April 22, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Ninth Amendment to the Second Amended and Restated Credit Agreement (the “Ninth Amendment”) to the Credit Agreement to its Revolving Credit Facility to extend the maturity date of a portion of the revolving commitments thereunder to February 14, 2028. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

During the year ended December 31, 2024, the Company repurchased \$343 million in aggregate principal amount of its Convertible Senior Notes, for \$603 million, which included the payment of \$3 million of accrued interest, using cash on hand and a portion of the proceeds from the Existing Term Loans. For the year ended December 31, 2024, a \$260 million loss on debt extinguishment was recorded in connection with the repurchases. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

During the second quarter of 2024, the Company entered into privately negotiated capped call transactions with certain counterparties to effectively lock in a conversion premium of \$257 million on the remaining \$232 million of the Convertible Senior Notes. The option price of \$257 million was incurred when the Company entered into the capped call transactions, which will be payable upon the earlier of settlement and expiration of the applicable Capped Call. For further discussion see Item 15 — Note 15, *Capital Structure*.

On June 21, 2024, NRG Receivables, amended its existing Receivables Facility to, among other things, (i) extend the scheduled termination date to June 20, 2025, (ii) increase the aggregate commitments from \$1.4 billion to \$2.3 billion (adjusted seasonally) and (iii) add a new originator. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

During the second quarter of 2024, the Company repaid \$600 million in aggregate principal amount of its 3.750% Senior Secured First Lien Notes due 2024.

Debt Refinancing Transactions

In the fourth quarter of 2024, the Company entered into the following debt transactions:

Sources		Uses	
Issuance by NRG of 6.000% Senior Notes due 2033	\$925 million	Repayment of the Vivint Senior Secured Term Loan B	\$1.310 billion
Issuance by NRG of 6.250% Senior Notes due 2034	\$950 million	Cash tender offer for Vivint 6.750% Senior Secured Notes due 2027 ^(a)	\$600 million
Exchange offer for New NRG 5.750% Senior Notes due 2029	\$798 million	Exchange offer for Vivint 5.750% Senior Notes due 2029 ^(b)	\$798 million
Incremental Term Loan B issued by NRG	\$450 million	Repayment of NRG 6.625% Senior Notes due 2027	\$375 million
		Transactions fees, expenses and premiums	\$40 million
Total		Total	\$3.123 billion

- (a) On October 15, 2024, APX Group, Inc. launched the Cash Tender Offer for the Vivint 6.750% Senior Secured Notes due 2027 and on October 30, 2024, delivered a notice of redemption with respect to the \$11 million of the Vivint 6.750% Senior Secured Notes due 2027 that remained outstanding
- (b) On October 15, 2024, APX Group, Inc. launched an Exchange Offer for the Vivint 5.750% Senior Notes due 2029 and on November 4, 2024, delivered a notice of redemption with respect to the \$2 million of the Vivint 5.750% Senior Notes due 2029 that remained outstanding following the Exchange Offer

As part of the above transactions, the Company entered into the Tenth and Eleventh Amendments to the Second Amended and Restated Credit Agreement (the “Tenth and Eleventh Amendments”) to the Credit Agreement to (i) include an incremental term loan B in an aggregate principal amount of \$450 million (the “Incremental Term Loan B Facility” and the loans thereunder, the “Incremental Term Loans”), (ii) extend the maturity date of its revolving credit facility to October 30, 2029 and (iii) make certain other amendments to the Credit Agreement.

On November 26, 2024, the Company, as borrower, entered into the Twelfth Amendment to the Second Amended and Restated Credit Agreement (the “Twelfth Amendment”) to the Credit Agreement to (i) reprice both the Existing Term Loan B Facility and the Incremental Term Loan B Facility and (ii) make certain other modifications to the Credit Agreement as set forth therein.

On December 20, 2024, the Company, as borrower, entered into the Thirteenth Amendment to the Second Amended and Restated Credit Agreement (the “Thirteenth Amendment”) to the Credit Agreement to (i) add APX Group, Inc. as an additional borrower of the loans under the Credit Agreement on a joint and several basis with the Company and (ii) make certain other modifications to the Credit Agreement as set forth therein.

In connection with the above transactions, a \$122 million loss on debt extinguishment was recorded, which included the write-off of discounts and previously deferred financing costs and other fees. For further discussion on these amendments and the debt transactions in the table above, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

Operations

In 2024, NRG entered into a definitive partnership agreement with Renew Home, a VPP platform formed by the combination of Google’s Nest Renew and OhmConnect. Leveraging Google Cloud’s AI and cloud platforms, NRG and Renew Home plan to develop a VPP portfolio of up to 1 GW of load management capacity, with instantaneous dispatch value during peak events and tight supply conditions.

The Company’s strategy is to procure mid to long-term renewable generation through power purchase agreements. NRG has entered into Renewable PPAs totaling approximately 1.9 GW with third-party project developers and other counterparties, of which all are operational as of December 31, 2024. The remaining average tenure of these agreements is nine years. The Company expects to continue evaluating and executing similar agreements that support the needs of the business. The total GW entered into through Renewable PPAs may be impacted by contract terminations when they occur.

Site Development Updates

On February 13, 2025, NRG signed a strategic Project Development Agreement with GE Vernova (“GEV”) and Kiewit’s subsidiary, TIC, to develop and construct up to 5.4 GW of new gas-fired, combined cycle generation projects. The generation facilities will be owned and operated by NRG. Additionally, NRG has entered into a slot reservation agreement with GEV for the procurement of 1.2 GW of 7HA gas turbines. The first projects under this comprehensive development agreement are expected to commence operations by the end of 2029.

Consolidated Results of Operations for the years ended December 31, 2024 and 2023

The following table provides selected financial information for the Company:

(In millions)	Year Ended December 31,		Change
	2024	2023	
Revenue			
Retail revenue	\$ 27,149	\$ 27,467	\$ (318)
Energy revenue ^(a)	500	553	(53)
Capacity revenue ^(a)	177	197	(20)
Mark-to-market for economic hedging activities	(3)	144	(147)
Contract amortization	(29)	(32)	3
Other revenues ^{(a)(b)}	336	494	(158)
Total revenue	28,130	28,823	(693)
Operating Costs and Expenses			
Cost of fuel	890	992	102
Purchased energy and other cost of sales ^(c)	19,371	20,610	1,239
Mark-to-market for economic hedging activities	(209)	3,007	3,216
Contract and emissions credit amortization ^(c)	49	93	44
Operations and maintenance	1,607	1,391	(216)
Other cost of operations	392	390	(2)
Cost of operations (excluding depreciation and amortization shown below)	22,100	26,483	4,383
Depreciation and amortization	1,403	1,295	(108)
Impairment losses	36	26	(10)
Selling, general and administrative costs (excluding amortization of customer acquisition costs of \$204, and \$125, respectively, which are included in depreciation and amortization shown separately above)	2,031	1,843	(188)
Provision for credit losses	314	251	(63)
Acquisition-related transaction and integration costs	30	119	89
Total operating costs and expenses	25,914	30,017	4,103
Gain on sale of assets	208	1,578	(1,370)
Operating Income	2,424	384	2,040
Other Income/(Expense)			
Equity in earnings of unconsolidated affiliates	20	16	4
Impairment losses on investments	(7)	(102)	95
Other income, net	44	47	(3)
(Loss)/Gain on debt extinguishment	(382)	109	(491)
Interest expense	(651)	(667)	16
Total other expenses	(976)	(597)	(379)
Income/(Loss) Before Income Taxes	1,448	(213)	1,661
Income tax expense/(benefit)	323	(11)	334
Net Income/(Loss)	\$ 1,125	\$ (202)	\$ 1,327

(a) Includes realized gains and losses from financially settled transactions

(b) Includes trading gains and losses and ancillary revenues

(c) Includes amortization of SO₂ and NO_x credits and excludes amortization of RGGI credits

Gross Margin

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

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's 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 management. Economic gross margin is defined as the sum of retail revenue, energy revenue, capacity revenue and other revenue, less cost of fuels, purchased energy and other cost of sales. Economic gross margin does not include mark-to-market gains or losses on economic hedging activities, contract amortization, emission credit amortization, depreciation and amortization, operations and maintenance, or other costs of operations.

The following tables present the composition and reconciliation of gross margin and economic gross margin for the years ended December 31, 2024 and 2023:

Year Ended December 31, 2024						
(\$ in millions, except otherwise noted)	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Retail revenue	\$ 10,400	\$ 11,247	\$ 3,595	\$ 1,932	\$ (25)	\$ 27,149
Energy revenue	41	242	229	—	(12)	500
Capacity revenue	—	156	24	—	(3)	177
Mark-to-market for economic hedging activities	—	(23)	16	—	4	(3)
Contract amortization	—	(27)	(2)	—	—	(29)
Other revenue ^(a)	212	112	24	—	(12)	336
Total revenue	10,653	11,707	3,886	1,932	(48)	28,130
Cost of fuel	(647)	(135)	(108)	—	—	(890)
Purchased energy and other costs of sales ^{(b)(c)(d)}	(6,585)	(9,577)	(3,090)	(144)	25	(19,371)
Mark-to-market for economic hedging activities	(684)	1,083	(186)	—	(4)	209
Contract and emissions credit amortization	(9)	(31)	(9)	—	—	(49)
Depreciation and amortization	(323)	(158)	(114)	(767)	(41)	(1,403)
Gross margin	\$ 2,405	\$ 2,889	\$ 379	\$ 1,021	\$ (68)	\$ 6,626
Less: Mark-to-market for economic hedging activities, net	(684)	1,060	(170)	—	—	206
Less: Contract and emissions credit amortization, net	(9)	(58)	(11)	—	—	(78)
Less: Depreciation and amortization	(323)	(158)	(114)	(767)	(41)	(1,403)
Economic gross margin	\$ 3,421	\$ 2,045	\$ 674	\$ 1,788	\$ (27)	\$ 7,901

(a) Includes trading gains and losses and ancillary revenues

(b) Includes capacity and emissions credits

(c) Includes \$3.3 billion, \$278 million and \$1.2 billion of TDSP expense in Texas, East, and West/Services/Other, respectively

(d) Excludes depreciation and amortization shown separately

Year Ended December 31, 2024

Business Metrics	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Home electricity sales volume (GWh)	39,353	15,229	2,355	—	—	56,937
Business electricity sales volume (GWh)	40,274	46,724	10,513	—	—	97,511
Home natural gas retail sales volumes (MDth)	—	49,927	75,898	—	—	125,825
Business natural gas retail sales volumes (MDth)	—	1,525,094	181,972	—	—	1,707,066
Average retail Home customer count (in thousands) ^(a)	2,940	2,165	748	—	—	5,853
Ending retail Home customer count (in thousands) ^(a)	2,909	2,191	720	—	—	5,820
Average Vivint Smart Home subscriber count (in thousands) ^(b)	—	—	—	2,100	—	2,100
Ending Vivint Smart Home subscriber count (in thousands) ^(b)	—	—	—	2,154	—	2,154
GWh sold	23,350	4,442	5,977	—	—	33,769
GWh generated ^(c)	23,350	2,372	5,977	—	—	31,699

(a) Home customer count includes recurring residential customers, services customers and community choice

(b) Vivint Smart Home includes customers that also purchase other NRG products

(c) Includes owned and leased generation, excludes tolled generation and equity investments

Year Ended December 31, 2023

(\$ in millions, except otherwise noted)

	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Corporate/Eliminations	Total
Retail revenue	\$ 10,030	\$ 11,946	\$ 3,943	\$ 1,549	\$ (1)	\$ 27,467
Energy revenue	77	291	185	—	—	553
Capacity revenue	—	197	2	—	(2)	197
Mark-to-market for economic hedging activities	—	57	103	—	(16)	144
Contract amortization	—	(32)	—	—	—	(32)
Other revenue ^(b)	369	88	48	—	(11)	494
Total revenue	10,476	12,547	4,281	1,549	(30)	28,823
Cost of fuel	(760)	(112)	(120)	—	—	(992)
Purchased energy and other costs of sales ^{(c)(d)(e)}	(6,288)	(10,683)	(3,532)	(116)	9	(20,610)
Mark-to-market for economic hedging activities	315	(2,471)	(867)	—	16	(3,007)
Contract and emissions credit amortization	(11)	(68)	(14)	—	—	(93)
Depreciation and amortization	(348)	(167)	(99)	(645)	(36)	(1,295)
Gross margin	\$ 3,384	\$ (954)	\$ (351)	\$ 788	\$ (41)	\$ 2,826
Less: Mark-to-market for economic hedging activities, net	315	(2,414)	(764)	—	—	(2,863)
Less: Contract and emissions credit amortization, net	(11)	(100)	(14)	—	—	(125)
Less: Depreciation and amortization	(348)	(167)	(99)	(645)	(36)	(1,295)
Economic gross margin	\$ 3,428	\$ 1,727	\$ 526	\$ 1,433	\$ (5)	\$ 7,109

(a) Includes results of operations following the acquisition date of March 10, 2023

(b) Includes trading gains and losses and ancillary revenues

(c) Includes capacity and emissions credits

(d) Includes \$3.1 billion, \$244 million and \$1.1 billion of TDSP expense in Texas, East, and West/Services/Other, respectively

(e) Excludes depreciation and amortization shown separately

Business Metrics	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Home electricity sales volume (GWh)	40,032	12,838	2,243	—	—	55,113
Business electricity sales volume (GWh)	40,250	46,438	10,393	—	—	97,081
Home natural gas retail sales volumes (MDth)	—	49,990	75,150	—	—	125,140
Business natural gas retail sales volumes (MDth)	—	1,587,052	179,888	—	—	1,766,940
Average retail Home customer count (in thousands) ^(a)	2,878	1,856	774	—	—	5,508
Ending retail Home customer count (in thousands) ^(a)	2,928	2,137	762	—	—	5,827
Average Vivint Smart Home subscriber count (in thousands) ^(b)	—	—	—	2,008	—	2,008
Ending Vivint Smart Home subscriber count (in thousands) ^(b)	—	—	—	2,043	—	2,043
GWh sold	30,776	5,396	5,903	—	—	42,075
GWh generated ^(c)	30,776	2,016	5,903	—	—	38,695

(a) Home customer count includes recurring residential customers, services customers and community choice

(b) Vivint Smart Home includes customers that also purchase other NRG products

(c) Includes owned and leased generation, excludes tolled generation and equity investments

The following table represents the weather metrics for 2024 and 2023:

Weather Metrics	Year ended December 31,			Quarter ended December 31,			Quarter ended September 30,			Quarter ended June 30,			Quarter ended March 31,		
	Texas	East	West/Services/Other ^(a)	Texas	East	West/Services/Other ^(a)	Texas	East	West/Services/Other ^(a)	Texas	East	West/Services/Other ^(a)	Texas	East	West/Services/Other ^(a)
2024															
CDDs ^(b)	3,464	1,360	2,132	461	83	251	1,714	814	1,194	1,173	431	638	116	32	49
HDDs ^(b)	1,309	4,236	1,968	393	1,560	658	—	28	11	31	435	200	885	2,213	1,099
2023															
CDDs	3,468	1,229	2,024	285	85	158	2,039	817	1,291	978	273	502	166	54	73
HDDs	1,469	4,139	2,105	613	1,520	688	—	48	4	57	479	254	799	2,092	1,159
10-year average															
CDDs	3,109	1,315	1,966	298	90	169	1,710	833	1,192	989	350	554	112	42	51
HDDs	1,676	4,705	2,058	636	1,616	752	3	49	8	59	538	192	978	2,502	1,106

(a) The West/Services/Other weather metrics are comprised of the average of the CDD and HDD regional results for the West - California and West - South Central regions

(b) National Oceanic and Atmospheric Administration-Climate Prediction Center - A CDD represents the number of degrees that the mean temperature for a particular day is above 65 degrees Fahrenheit in each region. A HDD represents the number of degrees that the mean temperature for a particular day is below 65 degrees Fahrenheit in each region. The CDDs/HDDs for a period of time are calculated by adding the CDDs/HDDs for each day during the period

Gross margin and economic gross margin

Gross margin increased \$3.8 billion and economic gross margin increased \$792 million, both of which include intercompany sales, during the year ended December 31, 2024, compared to the same period in 2023. The detail by segment is as follows:

Texas

	(In millions)
Higher gross margin due to the net effect of:	
• an increase in net revenue of \$178 million, primarily driven by changes in customer term, product and mix	
• a 5%, or \$144 million increase in cost to serve the retail load driven by higher realized power prices associated with the Company's diversified supply strategy including asset sales in 2023	\$ 34
Lower gross margin due to a decrease in load of 1.4 TWhs, or \$46 million, due to weather, partially offset by an increase in load of 7 GWhs, or \$8 million, driven by an increase in average customer counts	(38)
Other	(3)
Decrease in economic gross margin	\$ (7)
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges	(999)
Decrease in contract and emissions credit amortization	2
Decrease in depreciation and amortization	25
Decrease in gross margin	\$ (979)

East

	(In millions)
Lower gross margin due to a decrease in generation and capacity as a result of the Joliet and Astoria asset retirements	\$ (20)
Higher electric gross margin due to higher net revenue rates as a result of changes in customer term, product and mix of \$2.00 per MWh, or \$127 million as well as lower supply costs of \$0.75 per MWh, or \$54 million driven primarily by decreases in realized power prices	181
Higher electric gross margin due to an increase in customer count and change in customer mix	29
Higher natural gas gross margin including the impact of transportation and storage contract optimization, resulting in lower supply costs of \$0.60 per Dth, or \$992 million, driven by a decrease in gas costs, partially offset by lower net revenue rates of \$0.55 per Dth, or \$873 million, from changes in customer term, product and mix	119
Lower natural gas gross margin from a decrease in load due to a lower customer count and change in customer mix	(14)
Lower gross margin due to a reduction in capacity prices along with a prior year reduction in capacity performance penalties resulting from Winter Storm Elliott in December 2022	(15)
Higher gross margin due to an increase in average realized price at Midwest Generation and toll facilities, partially offset by higher supply costs	45
Other	(7)
Increase in economic gross margin	\$ 318
Increase in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges	3,474
Decrease in contract amortization	42
Decrease in depreciation and amortization	9
Increase in gross margin	\$ 3,843

West/Services/Other

	(In millions)
Higher electric gross margin due to lower supply costs of \$18.25 per MWh, or \$236 million, partially offset by lower revenue rates of \$9.75 per MWh, or \$124 million	\$ 112
Higher natural gas gross margin due to lower supply costs of \$1.10 per Dth, or \$284 million and changes in customer mix of \$1 million, partially offset by lower revenue rates of \$1.05 per Dth, or \$272 million	13
Higher gross margin at Cottonwood driven by spark spread expansion, favorable current year capacity pricing and a prior year reduction in capacity performance bonus payments resulting from Winter Storm Elliott in December 2022	74
Lower gross margin primarily due to the Sale of Airtron in September 2024	(28)
Lower gross margin from market optimization activities	(25)
Other	2
Increase in economic gross margin	\$ 148
Increase in mark-to-market for economic hedges primarily due to net unrealized gains/losses on open positions related to economic hedges	594
Decrease in contract amortization	3
Increase in depreciation and amortization	(15)
Increase in gross margin	\$ 730

Vivint Smart Home^(a)

	(In millions)
Increase due to the acquisition of Vivint Smart Home	\$ 289
Higher gross margin driven by growth in subscribers, or \$77 million, higher revenue rates of \$1.55 per subscriber or \$33 million, partially offset by lower non-recurring sales revenue of \$37 million	73
Lower gross margin due to recognition of fees associated with licensing products and services	(10)
Other	3
Increase in economic gross margin	\$ 355
Increase in depreciation and amortization	(122)
Increase in gross margin	\$ 233

(a) Includes results of operations following the acquisition date of March 10, 2023

Mark-to-market for Economic Hedging Activities

Mark-to-market for economic hedging activities includes asset-backed hedges that have not been designated as cash flow hedges. Total net mark-to-market results increased by \$3.1 billion during the year ended December 31, 2024, compared to the same period in 2023.

The breakdown of gains and losses included in revenues and operating costs and expenses by segment is as follows:

(In millions)	Year Ended December 31, 2024				
	Texas	East	West/Services/Other	Eliminations	Total
Mark-to-market results in revenues					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	\$ —	\$ (33)	\$ (1)	\$ 4	\$ (30)
Reversal of acquired (gain) positions related to economic hedges	—	(1)	—	—	(1)
Net unrealized gains on open positions related to economic hedges	—	11	17	—	28
Total mark-to-market (losses)/gains in revenues	\$ —	\$ (23)	\$ 16	\$ 4	\$ (3)
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains)/losses on settled positions related to economic hedges ^(a)	\$ (663)	\$ 740	\$ 63	\$ (4)	\$ 136
Reversal of acquired loss/(gain) positions related to economic hedges	9	(5)	2	—	6
Net unrealized (losses)/gains on open positions related to economic hedges	(30)	348	(251)	—	67
Total mark-to-market (losses)/gains in operating costs and expenses	\$ (684)	\$ 1,083	\$ (186)	\$ (4)	\$ 209

(a) Includes \$37 million, within the Texas segment, related to derivative contracts that were elected as NPNS on October 1, 2024 and are no longer valued at fair value on a recurring basis. For further discussion, see Item 15 — Note 6, *Accounting for Derivative Instruments and Hedging Activities*

(In millions)	Year Ended December 31, 2023				
	Texas	East	West/Services/Other	Eliminations	Total
Mark-to-market results in revenues					
Reversal of previously recognized unrealized (gains)/losses on settled positions related to economic hedges	\$ —	\$ (25)	\$ 56	\$ (12)	\$ 19
Reversal of acquired (gain) positions related to economic hedges	—	(2)	—	—	(2)
Net unrealized gains on open positions related to economic hedges	—	84	47	(4)	127
Total mark-to-market gains in revenues	\$ —	\$ 57	\$ 103	\$ (16)	\$ 144
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	\$ (473)	\$ (812)	\$ (480)	\$ 12	\$ (1,753)
Reversal of acquired loss/(gain) positions related to economic hedges	17	11	(6)	—	22
Net unrealized gains/(losses) on open positions related to economic hedges	771	(1,670)	(381)	4	(1,276)
Total mark-to-market gains/(losses) in operating costs and expenses	\$ 315	\$ (2,471)	\$ (867)	\$ 16	\$ (3,007)

Mark-to-market results consist of unrealized gains and losses on contracts that are yet to be settled. The settlement of these transactions is reflected in the same revenue or cost caption as the items being hedged.

The reversals of acquired gain or loss positions were valued based upon the forward prices on the acquisition date.

For the year ended December 31, 2024, the \$3 million loss in revenues from economic hedge positions was driven by the reversal of previously recognized unrealized gains on contracts that settled during the period, largely offset by an increase in the value of open positions as a result of decreases in New York capacity and MISO power prices. The \$209 million gain in operating costs and expenses from economic hedge positions was driven primarily by the reversal of previously recognized unrealized losses on contracts that settled during the period, as well as an increase in the value of open positions as a result of increases in natural gas and Northeast power prices. This was partially offset by a decrease in the value of open positions as a result of decreases in CAISO and Alberta power prices.

For the year ended December 31, 2023, the \$144 million gain in revenues from economic hedge positions was driven by an increase in the value of open positions as a result of decreases in power prices. The \$3.0 billion loss in operating costs and expenses from economic hedge positions was driven primarily by the reversal of previously recognized unrealized gains on contracts that settled during the period, as well as a decrease in the value of East and West/Other open positions as a result of decreases in natural gas and power prices. This was partially offset by an increase in the value of Texas open positions as a result of increases in ERCOT power prices.

In accordance with ASC 815, the following table represents the results of the Company's financial and physical trading of energy commodities for the years ended December 31, 2024 and 2023. The realized and unrealized financial and physical trading results are included in revenue. The Company's trading activities are subject to limits within the Company's Risk Management Policy.

(In millions)	Year ended December 31,	
	2024	2023
Trading gains		
Realized	\$ 31	\$ 11
Unrealized	1	38
Total trading gains	\$ 32	\$ 49

Operations and Maintenance Expenses

Operations and maintenance expenses are comprised of the following:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Corporate	Eliminations	Total
Year Ended December 31, 2024	\$ 783	\$ 364	\$ 216	\$ 247	\$ 7	\$ (10)	\$ 1,607
Year Ended December 31, 2023	620	343	245	187	—	(4)	1,391

(a) Includes results of operations following the acquisition date of March 10, 2023

Operations and maintenance expenses increased by \$216 million for the year ended December 31, 2024, compared to the same period in 2023, due to the following:

	(In millions)
Increase primarily due to the prior year partial property insurance claim for the extended outage at W.A. Parish	\$ 164
Increase in planned major maintenance expenditures associated with the scope and duration of outages at the Texas coal and gas facilities, and Powerton	154
Increase due to the acquisition of Vivint Smart Home in March 2023	36
Increase driven by higher Vivint Smart Home operations costs	24
Increase driven by higher retail operations costs	16
Decrease primarily due to the sale of STP in November 2023	(125)
Decrease driven by a reduction in deactivation and asset retirement expenditures primarily in the East	(33)
Decrease due to the sale of Airtron in September 2024	(15)
Other	(5)
Increase in operations and maintenance expense	\$ 216

Other Cost of Operations

Other Cost of operations are comprised of the following:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Total
Year Ended December 31, 2024	\$ 236	\$ 136	\$ 14	\$ 6	\$ 392
Year Ended December 31, 2023	243	131	13	3	390

(a) Includes results of operations following the acquisition date of March 10, 2023

Other cost of operations increased by \$2 million for the year ended December 31, 2024, compared to the same period in 2023, due to the following:

	(In millions)
Increase in retail gross receipt taxes in Texas and East	\$ 9
Increase due to changes in current year ARO cost estimates at Midwest Generation and Jewett Mine	6
Increase due to higher insurance premiums	6
Decrease primarily due to the sale of STP in November 2023	(21)
Other	2
Increase in other cost of operations	\$ 2

Depreciation and Amortization

Depreciation and amortization expenses are comprised of the following:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Corporate	Total
Year Ended December 31, 2024	\$ 323	\$ 158	\$ 114	\$ 767	\$ 41	\$ 1,403
Year Ended December 31, 2023	348	167	99	645	36	1,295

(a) Includes results of operations following the acquisition date of March 10, 2023

Depreciation and amortization expense increased by \$108 million for the year ended December 31, 2024, compared to the same period in 2023, primarily due to an increase in amortization of capitalized contract costs, partially offset by a decrease in amortization driven by the expected roll of the acquired Vivint Smart Home intangibles.

Impairment Losses

During the year ended December 31, 2024, the Company recorded impairment losses related to property plant and equipment and other assets of \$7 million, and \$29 million in the Texas and West/Services/Other segments, respectively.

During the year ended December 31, 2023, the Company recorded impairment losses related to property plant and equipment and leases of \$2 million, \$4 million and \$20 million in the Texas, East and West/Services/Other segments, respectively.

Refer to Item 15 — Note 10, *Asset Impairments*, to the Consolidated Financial Statements for further discussion.

Selling, General and Administrative Costs

Selling, general and administrative costs are comprised of the following:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Corporate/ Eliminations	Total
Year Ended December 31, 2024	\$ 638	\$ 561	\$ 201	\$ 591	\$ 40	\$ 2,031
Year Ended December 31, 2023	587	524	198	477	57	1,843

(a) Includes results of operations following the acquisition date of March 10, 2023

Selling, general and administrative costs increased by \$188 million for the year ended December 31, 2024 compared to the same period in 2023, due to the following:

	(In millions)
Increase due to the acquisition of Vivint Smart Home in March 2023	\$ 87
Increase due to reserves for legal matters in 2024 and partially offset by the favorable resolution of legal matters in 2023	58
Increase in personnel costs primarily driven by an increase in accruals as part of the Company's annual incentive plan reflecting financial outperformance for the year	46
Increase in equity linked compensation primarily driven by a higher share price in 2024	33
Increase in marketing and media expenses	24
Decrease in consulting and legal expenses	(36)
Decrease driven by the sale of STP in November 2023	(10)
Other	(14)
Increase in selling, general and administrative costs	\$ 188

Provision for Credit Losses

Provision for credit losses are comprised of the following:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Total
Year Ended December 31, 2024	\$ 203	\$ 25	\$ 8	\$ 38	\$ 314
Year Ended December 31, 2023	159	28	30	34	251

(a) Includes results of operations following the acquisition date of March 10, 2023

Provision for credit losses increased by \$63 million for the year ended December 31, 2024, compared to the same period in 2023, due to the following:

	(In millions)
Increase primarily due to higher Texas Home retail revenues and customer payment behavior	\$ 54
Increase due to the acquisition of Vivint Smart Home in March 2023	9
Increase in provision for credit losses	\$ 63

Acquisition-Related Transaction and Integration Costs

Acquisition-related transaction and integration costs were \$30 million and \$119 million for the years ended December 31, 2024 and 2023, respectively, include:

(In millions)	As of December 31,	
	2024	2023
Vivint Smart Home integration costs	\$ 23	\$ 52
Vivint Smart Home acquisition costs	—	38
Other integration costs, primarily related to Direct Energy	7	29
Acquisition-related transaction and integration costs	<u>\$ 30</u>	<u>\$ 119</u>

Gain on Sale of Assets

The gain on sale of assets of \$208 million and \$1.6 billion recorded for the years ended December 31, 2024 and 2023, respectively, include:

(In millions)	As of December 31,	
	2024	2023
Sale of the Company's 44% equity interest in STP	\$ —	\$ 1,236
Sale of the Airtron business unit	204	—
Sale of Astoria land and related assets	—	199
Sale of the Company's 100% ownership in the Gregory natural gas generating facility	—	82
Sale of land and structures at the Company's deactivated Norwalk Harbor, LLC site	—	38
Sale of land at the Company's Indian River Power, LLC site	—	19
Other asset sales	4	4
Gain on sale of assets	<u>\$ 208</u>	<u>\$ 1,578</u>

Impairment Losses on Investments

During the years ended December 31, 2024 and 2023, the Company recorded impairment losses of \$7 million and \$102 million, respectively, on the Company's equity method investment in Gladstone generation facility, as further described in Item 15 — Note 10, Asset Impairments, to the Consolidated Financial Statements.

(Loss)/Gain on Debt Extinguishment

The (loss)/gain on debt extinguishment of \$(382) million and \$109 million recorded for the years ended December 31, 2024, and 2023, respectively, include:

(In millions)	As of December 31,	
	2024	2023
Repurchase of a portion of the Convertible Senior Notes	\$ (260)	\$ —
Exchange offer for the Vivint 5.750% Senior Notes, due 2029	(90)	—
Repayment of the Vivint Senior Secured Term Loan B	(18)	—
Redemption of the Vivint 6.750% Senior Secured Notes, due 2027	(13)	—
Redemption of the 6.625% Senior Notes, due 2027	(1)	—
Partial redemption of the 3.875% Senior Notes, due 2032	—	109
(Loss)/Gain on Debt Extinguishment	<u>\$ (382)</u>	<u>\$ 109</u>

Refer to Item 15 — Note 12, *Long-term Debt and Finance Leases*, to the Consolidated Financial Statements for further discussion.

Income Tax Expense/(Benefit)

For the year ended December 31, 2024, NRG recorded an income tax expense of \$323 million on pre-tax income of \$1.4 billion. For the same period in 2023, NRG recorded income tax benefit of \$11 million on a pre-tax loss of \$213 million. The effective tax rate was 22.3% and 5.2% for the years ended December 31, 2024 and 2023, respectively.

For the year ended December 31, 2024, NRGs overall effective tax rate was higher than the federal statutory tax rate of 21%, primarily due to permanent differences and state tax expense partially offset by tax benefits from the revaluation of deferred tax assets and decrease of certain state valuation allowances.

(In millions, except effective income tax rate)	Year Ended December 31,			
	2024		2023	
Income/(Loss) before income taxes	\$	1,448	\$	(213)
Tax at federal statutory tax rate		304		(45)
State taxes		92		(22)
Foreign rate differential		1		(10)
Changes in state valuation allowances		(110)		42
Nondeductible loss on Convertible Senior Notes repurchases		56		—
Permanent differences		23		31
Stock compensation		(19)		—
Recognition of uncertain tax benefits		1		12
Deferred impact of state tax rate changes		(24)		3
Foreign tax refunds		—		(17)
Return to provision adjustments		(1)		(5)
Income tax expense/(benefit)	\$	323	\$	(11)
Effective income tax rate		22.3 %		5.2 %

The effective income tax rate may vary from period to period depending on, among other factors, the geographic and business mix of earnings and losses and changes in valuation allowances in accordance with ASC 740, *Income Taxes* ("ASC 740"). These factors and others, including the Company's history of pre-tax earnings and losses, are taken into account in assessing the ability to realize deferred tax assets.

Liquidity and Capital Resources

Liquidity Position

As of December 31, 2024 and 2023, NRGs liquidity, excluding collateral funds deposited by counterparties, was approximately \$5.4 billion and \$4.8 billion, respectively, comprised of the following:

(In millions)	As of December 31,			
	2024		2023	
Cash and cash equivalents	\$	966	\$	541
Restricted cash - operating		4		21
Restricted cash - reserves ^(a)		4		3
Total		974		565
Total availability under Revolving Credit Facility and collective collateral facilities ^(b)		4,469		4,278
Total liquidity, excluding collateral funds deposited by counterparties	\$	5,443	\$	4,843

(a) Includes reserves primarily for debt service, performance obligations and capital expenditures

(b) Total capacity of Revolving Credit Facility and collective collateral facilities was \$7.3 billion and \$7.4 billion as of December 31, 2024 and December 31, 2023, respectively

As of December 31, 2024, total liquidity, excluding collateral funds deposited by counterparties, increased by \$600 million. Changes in cash and cash equivalent balances are further discussed under the heading *Cash Flow Discussion*. Cash and cash equivalents at December 31, 2024, were predominantly held in bank deposits.

Management believes that the Company's liquidity position and cash flows from operations will be adequate to finance operating and maintenance capital expenditures, to fund dividends, and to fund other liquidity commitments in the short and long-term. 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.

The consolidated statement of cash flows includes certain draws from, and payments to, the revolving credit facility and other credit facilities which are not eligible for net reporting. These transactions are for short term liquidity purposes.

Credit Ratings

On March 18, 2024, S&P affirmed the Company's issuer credit rating of BB and changed the rating outlook from Stable to Positive.

The following table summarizes the Company's current credit ratings:

	S&P	Moody's	Fitch
NRG Energy, Inc.	BB Positive	Ba1 Stable	BB+ Stable
Senior Secured Debt	BBB-	Baa3	BBB-
Senior Unsecured Debt	BB	Ba2	BB+
Preferred Stock	B	Ba3	BB-

Liquidity

The principal sources of liquidity for NRG's operating and capital expenditures are expected to be derived from cash on hand, cash flows from operations and financing arrangements. As described in Item 15 — Note 12, *Long-term Debt and Finance Leases*, to the Consolidated Financial Statements, the Company's financing arrangements consist mainly of the Senior Notes, Convertible Senior Notes, Senior Secured First Lien Notes, Revolving Credit Facility, the Receivables Securitization Facilities and tax-exempt bonds. The Company also issues letters of credit through bilateral letter of credit facilities and the pre-capitalized trust securities facility.

The Company's requirements for liquidity and capital resources, other than for operating its facilities, can generally be categorized by the following: (i) market operations activities; (ii) debt service obligations, as described more fully in Item 15 — Note 12, *Long-term Debt and Finance Leases*, to the Consolidated Financial Statements; (iii) capital expenditures, including maintenance, environmental, and investments and integration; and (iv) allocations in connection with acquisition opportunities, debt repayments, share repurchases and dividend payments to stockholders, as described in Item 15 — Note 15, *Capital Structure*, to the Consolidated Financial Statements.

Sale of Airtron

On September 16, 2024, the Company closed on the sale of its 100% ownership in the Airtron business unit. Proceeds of \$500 million were reduced by working capital and other adjustments of \$20 million, resulting in net proceeds of \$480 million.

Senior Credit Facility

On April 16, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Eighth Amendment, which amended the Credit Agreement, in order to (i) establish the Existing Term Loan B Facility with borrowings of \$875 million in aggregate principal amount and the Existing Term Loans and (ii) make certain other modifications to the Credit Agreement as set forth therein. The proceeds from the Existing Term Loans were used to repay a portion of the Company's Convertible Senior notes, all of the Company's 3.750% senior secured first lien notes due 2024 and for general corporate purposes.

On April 22, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Ninth Amendment to its Revolving Credit Facility to extend the maturity date of a portion of the revolving commitments thereunder to February 14, 2028. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

Debt Refinancing Transactions

In the fourth quarter of 2024, the Company entered into the following debt transactions:

Sources		Uses	
Issuance by NRG of 6.000% Senior Notes due 2033	\$925 million	Repayment of the Vivint Senior Secured Term Loan B	\$1.310 billion
Issuance by NRG of 6.250% Senior Notes due 2034	\$950 million	Cash tender offer for Vivint 6.750% Senior Secured Notes due 2027 ^(a)	\$600 million
Exchange offer for New NRG 5.750% Senior Notes due 2029	\$798 million	Exchange offer for Vivint 5.750% Senior Notes due 2029 ^(b)	\$798 million
Incremental Term Loan B issued by NRG	\$450 million	Repayment of NRG 6.625% Senior Notes due 2027	\$375 million
		Transactions fees, expenses and premiums	\$40 million
Total	\$3.123 billion	Total	\$3.123 billion

- (a) On October 15, 2024, APX Group, Inc. launched the Cash Tender Offer for the Vivint 6.750% Senior Secured Notes due 2027 and on October 30, 2024, delivered a notice of redemption with respect to the \$11 million of the Vivint 6.750% Senior Secured Notes due 2027 that remained outstanding.
- (b) On October 15, 2024, APX Group, Inc. launched an Exchange Offer for the Vivint 5.750% Senior Notes due 2029 and on November 4, 2024, delivered a notice of redemption with respect to the \$2 million of the Vivint 5.750% Senior Notes due 2029 that remained outstanding following the Exchange Offer.

As part of the above transactions, the Company entered into the Tenth and Eleventh Amendments to the Credit Agreement to (i) include the Incremental Term Loan B Facility in an aggregate principal amount of \$450 million and the Incremental Term Loans, (ii) extend the maturity date of its revolving credit facility to October 30, 2029 and (iii) make certain other amendments to the Credit Agreement.

On November 26, 2024, the Company, as borrower, entered into the Twelfth Amendment to the Credit Agreement to (i) reprice both the Existing Term Loan B Facility and the Incremental Term Loan B Facility and (ii) make certain other modifications to the Credit Agreement as set forth therein.

On December 20, 2024, the Company, as borrower, entered into the Thirteenth Amendment to the Credit Agreement to (i) add APX Group, Inc. as an additional borrower of the loans under the Credit Agreement on a joint and several basis with the Company and (ii) make certain other modifications to the Credit Agreement as set forth therein. For further discussion on these amendments and the debt transactions in the table above, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

Convertible Senior Notes

As of January 1, 2025, the Company's Convertible Senior Notes are convertible during the quarterly period ending March 31, 2025 due to the satisfaction of the Common Stock Sale Price Condition. In addition, the Convertible Senior Notes are also convertible from December 1, 2024 until the close of business on the second scheduled trading day immediately before June 1, 2025. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

During the year ended December 31, 2024, the Company completed repurchases of a portion of the Convertible Senior Notes using cash on hand and a portion of the proceeds from the Existing Term Loans, as detailed in the table below. For the year ended December 31, 2024, a \$260 million loss on debt extinguishment was recorded.

(In millions, except percentages)

Settlement Period	Principal Repurchased		Cash Paid ^(a)		Average Repurchase Percentage
March 2024	\$	92	\$	151	162.356%
April 2024		251		452	179.454%
Total Repurchases	\$	343	\$	603	

- (a) Includes accrued interest of \$1 million and \$2 million for the March and April repurchases, respectively.

During the second quarter of 2024, the Company entered into privately negotiated capped call transactions with certain counterparties. The Capped Calls have a cap price of \$249.00 per share, subject to certain adjustments, and effectively lock in a conversion premium of \$257 million on the remaining \$232 million balance of the Convertible Senior Notes. The option price of \$257 million was incurred when the Company entered into the Capped Calls, which will be payable upon the earlier of settlement and expiration of the applicable Capped Calls. For further discussion, see Item 15 - Note 15, *Capital Structure*, to the Consolidated Financial Statements for additional discussion.

Receivables Securitization Facilities

On June 21, 2024, NRG Receivables, amended its existing Receivables Facility to, among other things, (i) extend the scheduled termination date to June 20, 2025, (ii) increase the aggregate commitments from \$1.4 billion to \$2.3 billion (adjusted seasonally) and (iii) add a new originator. As of December 31, 2024, there were no outstanding borrowings and there were \$1.4 billion in letters of credit issued.

Also on June 21, 2024, the Additional Originator entered into the Joinder Agreement to join as Additional Originator to the Receivables Sale Agreement, dated as of September 22, 2020, among Direct Energy, LP, Direct Energy Business, LLC, Green Mountain Energy Company, NRG Business Marketing, LLC, Reliant Energy Northeast LLC, Reliant Energy Retail Services, LLC, Stream SPE, Ltd., US Retailers LLC and XOOM Energy Texas, LLC, as Originators, NRG Retail, as the servicer, and the Receivables Sale Agreement. Pursuant to the Joinder Agreement, the Additional Originator agrees to be bound by the terms of the Receivables Sale Agreement, will sell to NRG Receivables substantially all of its Receivables and in connection therewith have transferred to NRG Receivables the deposit accounts into which the proceeds of such Receivables are paid.

Concurrently with the amendments to the Receivables Facility, the Company and the originators thereunder terminated the existing uncommitted Repurchase Facility.

Senior Secured First Lien Note Repayment

During the second quarter of 2024, the Company repaid \$600 million in aggregate principal amount of its 3.750% Senior Secured First Lien Notes due 2024.

Vivint Term Loan

On April 10, 2024, the Company's wholly-owned indirect subsidiary, Vivint, entered into Amendment No. 2 (the "Second Amendment") to the Second Amended and Restated Credit Agreement dated as of June 9, 2021 (the "Vivint Credit Agreement") with, among others, Bank of America, N.A. as administrative agent (the "Vivint Agent"), and certain financial institutions, as lenders, which amended the Vivint Credit Agreement in order to (i) reprice its term loan B facility (the term loans thereunder, the "Vivint Term Loans") and (ii) make certain other modifications to the Vivint Credit Agreement as set forth therein.

On October 30, 2024, the Company repaid in full the outstanding Vivint Term Loans of approximately \$1.3 billion and terminated the revolving credit facility under the Vivint Credit Agreement.

Liability Management

The Company executed \$342 million in liability management in 2024 and achieved its targeted credit metrics. The Company intends to spend approximately \$270 million from cash from operations during 2025. The Company remains committed to maintaining a strong balance sheet and its targeted credit metrics.

Pension and Other Postretirement Benefit Contributions

As of December 31, 2024, the Company's estimated pension minimum funding requirements for the next 5 years were \$108 million, of which \$16 million are required to be made within the next 12 months. As of December 31, 2024, the Company's estimated other postretirement benefits minimum funding requirements for the next 5 years were \$24 million, of which \$5 million are required to be made within the next 12 months. These amounts represent estimates based on assumptions that are subject to change. For further discussion, see Item 15 — Note 14, *Benefit Plans and Other Postretirement Benefits*, to the Consolidated Financial Statements.

Debt Service Obligations

Principal payments on debt and finance leases as of December 31, 2024, are due in the following periods:

(In millions)

Description	2025	2026	2027	2028	2029	Thereafter	Total
Recourse Debt:							
5.750% Senior Notes, due 2028	\$ —	\$ —	\$ —	\$ 821	\$ —	\$ —	\$ 821
5.250% Senior Notes, due 2029	—	—	—	—	733	—	733
3.375% Senior Notes, due 2029	—	—	—	—	500	—	500
5.750% Senior Notes, due 2029	—	—	—	—	798	—	798
3.625% Senior Notes, due 2031	—	—	—	—	—	1,030	1,030
3.875% Senior Notes, due 2032	—	—	—	—	—	480	480
6.000% Senior Notes, due 2033	—	—	—	—	—	925	925
6.250% Senior Notes, due 2034	—	—	—	—	—	950	950
2.750% Convertible Senior Notes, due 2048	232	—	—	—	—	—	232
2.000% Senior Secured Notes, due 2025	500	—	—	—	—	—	500
2.450% Senior Secured Notes, due 2027	—	—	900	—	—	—	900
4.450% Senior Secured Notes, due 2029	—	—	—	—	500	—	500
7.00% Senior Secured Notes, due 2033	—	—	—	—	—	740	740
Tax-exempt bonds	247	—	—	59	—	160	466
Term Loan B, due 2031	11	14	13	13	13	1,253	1,317
Subtotal Recourse Debt	990	14	913	893	2,544	5,538	10,892
Finance Leases:							
Finance leases	6	4	3	1	—	—	14
Total Debt and Finance Leases	\$ 996	\$ 18	\$ 916	\$ 894	\$ 2,544	\$ 5,538	\$ 10,906
Interest Payments	\$ 598	\$ 578	\$ 565	\$ 486	\$ 408	\$ 877	\$ 3,512

For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

Market Operations

The Company's market operations activities require a significant amount of liquidity and capital resources. These liquidity requirements are primarily driven by: (i) margin and collateral posted with counterparties; (ii) margin and collateral required to participate in physical markets and commodity exchanges; (iii) timing of disbursements and receipts (e.g. buying power before receiving retail revenues); and (iv) initial collateral for large structured transactions. As of December 31, 2024, market operations had total cash collateral outstanding of \$309 million and \$2.9 billion outstanding in letters of credit to third parties primarily to support its market activities. As of December 31, 2024, total funds deposited by counterparties were \$199 million in cash and \$377 million of letters of credit.

The Company has entered into long-term contractual arrangements related to energy purchases, gas transportation and storage, and fuel and transportation services and generation projects. As of December 31, 2024, the Company had minimum payment obligations under such outstanding agreements of \$9.0 billion, with \$2.4 billion payable within the next 12 months and an additional \$1.5 billion of short-term purchase energy commitments. For further discussion, see Item 15 — Note 22, *Commitments and Contingencies*.

Future liquidity requirements may change based on the Company's hedging activities and structures, fuel purchases, and future market conditions, including forward prices for energy and fuel and market volatility. In addition, liquidity requirements are dependent on the Company's credit ratings and general perception of its creditworthiness.

First Lien Structure

NRG has the capacity to grant first liens to certain counterparties on a substantial portion of the Company's assets, subject to various exclusions including NRG's assets that have project-level financing and the assets of certain non-guarantor subsidiaries, to reduce the amount of cash collateral and letters of credit that it would otherwise be required to post from time to time to support its obligations under out-of-the-money hedge agreements. The first lien program does not limit the volume that

can be hedged or the value of underlying out-of-the-money positions. The first lien program also does not require NRG to post collateral above any threshold amount of exposure. The first lien structure is not subject to unwind or termination upon a ratings downgrade of a counterparty and has no stated maturity date.

The Company's first lien counterparties may have a claim on its assets to the extent market prices exceed the hedged prices. As of December 31, 2024, all hedges under the first liens were in-the-money on a counterparty aggregate basis.

Capital Expenditures

The following table summarizes the Company's capital expenditures for maintenance, environmental and investments and integration for the year ended December 31, 2024:

(In millions)	Maintenance	Environmental	Investments and Integration	Total
Texas	\$ 191	\$ 18	\$ 160	\$ 369
East	—	3	—	3
West/Services/Other	15	—	1	16
Vivint Smart Home	18	—	5	23
Corporate	19	—	42	61
Total cash capital expenditures for 2024	243	21	208	472
Integration operating expenses and cost to achieve	—	—	60	60
Investments	—	—	180	180
Total cash capital expenditures and investments for the year ended December 31, 2024	\$ 243	\$ 21	\$ 448	\$ 712

Investments and Integration for the year ended December 31, 2024 include growth expenditures, integration, small book acquisitions and other investments.

Environmental Capital Expenditures Estimate

NRG estimates that environmental capital expenditures from 2025 through 2029 required to comply with environmental laws will be approximately \$73 million, primarily driven by the cost of complying with ELG at the Company's coal units in Texas.

The table below summarizes the status of NRG's coal fleet with respect to air quality controls as of December 31, 2024. NRG uses an integrated approach to fuels, controls and emissions markets to meet environmental requirements.

Units	State	SO ₂		NO _x		Mercury		Particulate	
		Control Equipment	Install Date	Control Equipment	Install Date	Control Equipment	Install Date	Control Equipment	Install Date
Indian River 4 ^(a)	DE	CDS	2011	LNBOFA/SCR	1999/2011	ACI/CDS/FF	2008/2011	ESP/FF	1980/2011
Limestone 1-2	TX	FGD	1985-86	LNBOFA	2002/2003	ACI	2015	ESP	1985-1986
Powerton 5	IL	DSI	2016	OFA/SNCR	2003/2012	ACI	2009	ESP/upgrade	1973/2016
Powerton 6	IL	DSI	2014	OFA/SNCR	2002/2012	ACI	2009	ESP/upgrade	1976/2014
W.A. Parish 5, 6, 7	TX	FF co-benefit	1988	SCR	2004	ACI	2015	FF	1988
W.A. Parish 8	TX	FGD	1982	SCR	2004	ACI	2015	FF	1988

(a) Indian River Unit 4 retired on February 23, 2025

ACI - Activated Carbon Injection
CDS - Circulating Dry Scrubber
DSI - Dry Sorbent Injection with Trona
ESP - Electrostatic Precipitator
FGD - Flue Gas Desulfurization (wet)

FF - Fabric Filter
LNBOFA - Low NO_x Burner with Overfire Air
OFA - Overfire Air
SCR - Selective Catalytic Reduction
SNCR - Selective Non-Catalytic Reduction

The following table summarizes the estimated environmental capital expenditures by year:

(In millions)	Total
2025	\$ 40
2026	16
2027	11
2028	3
2029	3
Total	\$ 73

Share Repurchases

During the year ended December 31, 2024, the Company completed \$925 million of open market share repurchases at an average price of \$87.57 per share. See Item 15 — Note 15, *Capital Structure* for additional discussion.

In October 2024, the Board of Directors authorized an additional \$1.0 billion for share repurchases as part of the existing share repurchase authorization, for a total of \$3.7 billion. As of January 31, 2025, \$1.5 billion is remaining under the \$3.7 billion authorization.

Dividend Increase on Common Stock

During the first quarter of 2024, NRG increased the annual dividend on its common stock to \$1.63 from \$1.51 per share. The Company returned \$343 million of capital to common shareholders in the year ended 2024 through a \$1.63 dividend per common share. Beginning in the first quarter of 2025, NRG increased the annual common stock dividend to \$1.76 per share, representing an 8% increase from 2024. The Company expects to target an annual common stock dividend growth rate of 7-9% per share in subsequent years.

On January 22, 2025, NRG declared a quarterly dividend on the Company's common stock of \$0.44 per share, or \$1.76 per share on an annualized basis, payable on February 18, 2025, to stockholders of record as of February 3, 2025. The Company's common stock dividends are subject to available capital, market conditions, and compliance with associated laws and regulations.

Series A Preferred Stock Dividends

In March and September 2024, the Company declared and paid semi-annual dividends of \$51.25 per share on its outstanding Series A Preferred Stock, each totaling \$33 million.

Additional Material Cash Requirements Not Discussed Above

Operating leases — The Company leases generating facilities, land, office and equipment, railcars, fleet vehicles and storefront space at retail stores. As of December 31, 2024, the Company had lease payment obligations of \$292 million, of which \$85 million is payable within the next 12 months. For further discussion, see Item 15 — Note 9, *Leases*.

Other liabilities — Other liabilities includes water right agreements, service and maintenance agreements, stadium naming rights, stadium sponsorships, long-term service agreements and other contractual obligations. As of December 31, 2024, the Company had total of \$270 million under such commitments, of which \$49 million are payable within the next 12 months.

Contingent obligations for guarantees — NRG and its subsidiaries enter into various contracts that include indemnifications and guarantee provisions as a routine part of the Company's business activities. For further discussion, see Item 15 — Note 26, *Guarantees*.

Obligations Arising Out of a Variable Interest in an Unconsolidated Entity

Variable Interest in Equity investments — NRG's investment in Ivanpah is a variable interest entity for which NRG is not the primary beneficiary. See also Item 15 — Note 16, *Investments Accounted for by the Equity Method and Variable Interest Entities*, to the Consolidated Financial Statements for additional discussion. NRG's pro-rata share of non-recourse debt was approximately \$461 million as of December 31, 2024. This indebtedness may restrict the ability of Ivanpah to issue dividends or distributions to NRG.

Cash Flow Discussion

2024 compared to 2023

The following table reflects the changes in cash flows for the comparative years:

(In millions)	Year ended December 31,		Change
	2024	2023	
Cash provided/(used) by operating activities	\$ 2,306	\$ (221)	\$ 2,527
Cash used by investing activities	(24)	(910)	886
Cash used by financing activities	(1,755)	(400)	(1,355)

Cash provided/(used) by operating activities

Changes to cash provided/(used) by operating activities were driven by:

	(In millions)
Changes in cash collateral in support of risk management activities due to change in commodity prices	\$ 2,051
Increase in operating income adjusted for other non-cash items	645
Increase in working capital primarily due to lower gas pricing coupled with lower gas sales volumes	341
Decrease in working capital primarily driven by capitalized contract costs and deferred revenues	(396)
Decrease in working capital primarily related to the payout of the Company's annual incentive plan in 2024 reflecting financial outperformance for 2023	(114)
	<u>\$ 2,527</u>

Cash used by investing activities

Changes to cash provided/(used) by investing activities were driven by:

	(In millions)
Decrease in cash paid for acquisitions primarily due to the acquisition of Vivint Smart Home in March 2023	\$ 2,485
Decrease in proceeds from the sale of assets primarily due to the sale of the Company's 44% equity interest in STP in November 2023	(1,506)
Decrease in insurance proceeds for property, plant and equipment, net	(237)
Decrease in capital expenditures	126
Other	18
	<u>\$ 886</u>

Cash (used)/provided by financing activities

Changes in cash (used)/provided by financing activities were driven by:

	(In millions)
Decrease due to repayments of long-term debt and finance leases	\$ (2,732)
Increase in proceeds due to the issuance of long-term debt in 2024	2,469
Decrease in proceeds due to the issuance of preferred stock in 2023	(635)
Decrease in net receipts from settlement of acquired derivatives	(345)
Decrease primarily due to debt extinguishment costs in 2024	(275)
Increase due to less payments for share repurchase activity in 2024	187
Increase in payments of dividends primarily due to preferred stock	(24)
	<u>\$ (1,355)</u>

NOLs, Deferred Tax Assets and Uncertain Tax Position Implications

For the year ended December 31, 2024, the Company had domestic pre-tax book income of \$1.5 billion and foreign pre-tax book loss of \$37 million. For the year ended December 31, 2024, the Company utilized U.S. federal NOLs of \$1.4 billion, and tax credits of \$103 million. As of December 31, 2024, the Company has cumulative U.S. federal NOL carryforwards of \$7 billion, of which \$5.3 billion do not have an expiration date, and cumulative state NOL carryforwards of \$6.1 billion for financial statement purposes. NRG also has cumulative foreign NOL carryforwards of \$394 million, most of which have no expiration date. In addition to the above NOLs, NRG has a \$274 million indefinite carryforward for interest deductions, as well as \$269 million of tax credits, inclusive of \$61 million of CAMT credits to be utilized in future years. As a result of the Company's tax position, including the utilization of federal and state NOLs, and based on current forecasts, the Company anticipates income tax payments, due to federal, state and foreign jurisdictions, of up to \$125 million in 2025, excluding the impact of the proposed CAMT regulations. As of December 31, 2024, NRG as an applicable corporation is subject to the CAMT, and has reflected the impact in its current and deferred taxes. There is no impact on the Company's provision for income taxes from the CAMT as of December 31, 2024.

The Company has \$57 million of tax effected uncertain federal, state and foreign tax benefits for which the Company has recorded a non-current tax liability of \$62 million (inclusive of accrued interest) until such final resolution with the related taxing authority.

On December 31, 2021, the OECD released rules which set forth a common approach to a global minimum tax at 15% for multinational companies, which has been enacted into law by certain countries effective for 2024. The Company's preliminary analysis indicates that there is no material impact to the Company's financial statements from these rules.

The Company is no longer subject to U.S. federal income tax examinations for years prior to 2021. With few exceptions, state and Canadian income tax examinations are no longer open for years before 2015.

Guarantor Financial Information

As of December 31, 2024, the Company's outstanding registered senior notes consisted of \$821 million of the 2028 Senior Notes as shown in Note 12, *Long-term Debt and Finance Leases*. These Senior Notes are guaranteed by certain of NRG's current and future 100% owned domestic subsidiaries, or guarantor subsidiaries (the "Guarantors"). See Exhibit 22.1 to this Annual Report on Form 10-K for a listing of the Guarantors. These guarantees are both joint and several.

NRG conducts much of its business through and derives much of its income from its subsidiaries. Therefore, the Company's ability to make required payments with respect to its indebtedness and other obligations depends on the financial results and condition of its subsidiaries and NRG's ability to receive funds from its subsidiaries. There are no restrictions on the ability of any of the Guarantors to transfer funds to NRG. Other subsidiaries of the Company do not guarantee the registered debt securities of either NRG Energy, Inc. or the Guarantors (such subsidiaries are referred to as the "Non-Guarantors"). The Non-Guarantors include all of NRG's foreign subsidiaries and certain domestic subsidiaries.

The following tables present summarized financial information of NRG Energy, Inc. and the Guarantors in accordance with Rule 3-10 under the SEC's Regulation S-X. The financial information may not necessarily be indicative of the results of operations or financial position of NRG Energy, Inc. and the Guarantors in accordance with U.S. GAAP.

The following table presents the summarized statement of operations:

(In millions)	For the Year Ended December 31, 2024	
Revenue ^(a)	\$	23,553
Operating income ^(b)		2,382
Total other expense		(635)
Income before income taxes		1,747
Net Income		1,411

(a) Intercompany transactions with Non-Guarantors of \$5 million during the year ended December 31, 2024

(b) Intercompany transactions with Non-Guarantors including cost of operations of \$26 million and selling, general and administrative of \$349 million during the year ended December 31, 2024

The following table presents the summarized balance sheet information:

(In millions)	As of December 31, 2024
Current assets ^(a)	\$ 6,090
Property, plant and equipment, net	1,318
Non-current assets	15,208
Current liabilities ^(b)	8,181
Non-current liabilities	12,481

- (a) Includes intercompany receivables due from Non-Guarantors of \$30 million as of December 31, 2024
(b) Includes intercompany payables due to Non-Guarantors that were de minimis as of December 31, 2024

Fair Value of Derivative Instruments

NRG may enter into energy purchase and sales contracts, 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 power plants or retail load obligations. In order to mitigate interest risk associated with the issuance of the Company's variable rate debt, NRG enters into interest rate swap agreements. In addition, in order to mitigate foreign exchange rate risk primarily associated with the purchase of USD denominated natural gas for the Company's Canadian business, NRG enters into foreign exchange contract agreements.

Under Flex Pay, offered by Vivint Smart Home, customers pay for smart home products by obtaining financing from a third-party financing provider under the Consumer Financing Program. Vivint Smart Home pays certain fees to the financing providers and shares in credit losses depending on the credit quality of the customer.

NRG's trading activities are subject to limits in accordance with the Company's Risk Management Policy. These contracts are recognized on the balance sheet at fair value and changes in the fair value of these derivative financial instruments are recognized in earnings.

The tables below disclose the activities that include both exchange and non-exchange traded contracts accounted for at fair value in accordance with ASC 820, *Fair Value Measurements and Disclosures* ("ASC 820"). Specifically, these tables disaggregate realized and unrealized changes in fair value; disaggregate estimated fair values at December 31, 2024, based on their level within the fair value hierarchy defined in ASC 820; and indicate the maturities of contracts at December 31, 2024. For a full discussion of the Company's valuation methodology of its contracts, see *Derivative Fair Value Measurements* in Item 15 — Note 5, *Fair Value of Financial Instruments*, to the Consolidated Financial Statements.

Derivative Activity Gains

	(In millions)
Fair value of contracts as of December 31, 2023	\$ 648
Contracts realized or otherwise settled during the period	165
Other changes in fair value	179
Fair value of contracts as of December 31, 2024 ^(a)	\$ 992

- (a) Includes \$770 million of derivative contracts that were elected as NPNS on October 1, 2024 and are no longer valued at fair value on a recurring basis. For further discussion, see Item 15 — Note 6, *Accounting for Derivative Instruments and Hedging Activities*

(In millions)	Fair Value of Contracts as of December 31, 2024				
	Maturity				Total Fair Value
Fair Value Hierarchy Gains/(Losses) ^(a)	1 Year or Less	Greater Than 1 Year to 3 Years	Greater Than 3 Years to 5 Years	Greater Than 5 Years	
Level 1	\$ 92	\$ 7	\$ (1)	\$ (2)	\$ 96
Level 2	118	143	22	7	290
Level 3	(107)	(50)	(9)	2	(164)
Total	\$ 103	\$ 100	\$ 12	\$ 7	\$ 222

- (a) Excludes \$770 million of derivative contracts that were elected as NPNS on October 1, 2024 and are no longer valued at fair value on a recurring basis. For further discussion, see Item 15 — Note 6, *Accounting for Derivative Instruments and Hedging Activities*

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. Also, collateral received or posted on the Company's derivative assets or liabilities are recorded on a separate line item on the balance sheet. Consequently, the magnitude of the changes in individual current and non-current derivative assets or liabilities is higher than the underlying credit and market risk of the Company's portfolio. As discussed in Item 7A — *Quantitative and Qualitative Disclosures About Market Risk, Commodity Price Risk*, NRG measures

the sensitivity of the Company's 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. NRGs risk management policy places a limit on one-day holding period VaR, which limits the Company's net open position. As the Company's trade-by-trade derivative accounting results in a gross-up of the Company's derivative assets and liabilities, the net derivative assets and liability position is a better indicator of NRGs hedging activity. As of December 31, 2024, NRGs net derivative asset was \$992 million, an increase to total fair value of \$344 million as compared to December 31, 2023. This increase was primarily driven by gains in fair value and roll-off of trades that settled during the period.

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 result in a change of approximately \$1.0 billion in the net value of derivatives as of December 31, 2024.

Critical Accounting 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 appropriate technical accounting rules and guidance 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 accounting guidance has not changed.

NRG evaluates these estimates, on an ongoing basis, utilizing historic experience, consultation with experts and other methods the Company considers reasonable. In any event, 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 identifies its most critical accounting estimates as those that are the most pervasive and important to the portrayal of the Company's financial position and results of operations, and require the most difficult, subjective, and/or complex judgments by management about matters that are inherently uncertain.

Such accounting estimates include:

<u>Accounting Estimate</u>	<u>Judgments/Uncertainties Affecting Application</u>
Derivative Instruments	Assumptions used in valuation techniques Market maturity and economic conditions Contract interpretation Market conditions in the energy industry, especially the effects of price volatility on contractual commitments
Income Taxes and Valuation Allowance for Deferred Tax Assets	Interpret existing tax statute and regulations upon application to transactions Ability to utilize tax benefits through carry backs to prior periods and carry forwards future periods Judgment about future realization of deferred tax assets
Evaluation of Assets for Impairment	Regulatory and political environments and requirements Estimated useful lives of assets Environmental obligations and operational limitations Estimates of future cash flows Estimates of fair value
Goodwill and Other Intangible Assets	Judgment about impairment triggering events Estimated useful lives for finite-lived intangible assets Judgment about impairment triggering events Estimates of reporting unit's fair value
Business Combinations	Fair value estimate of intangible assets acquired in business combinations Fair value of assets acquired and liabilities assumed in business combinations Estimated future cash flow Estimated useful lives of assets
Contingencies	Estimated financial impact of event(s) Judgment about likelihood of event(s) occurring Regulatory and political environments and requirements

Derivative Instruments

The Company follows the guidance of ASC 815, *Derivatives and Hedging* "(ASC 815)", to account for derivative instruments. ASC 815 requires the Company to mark-to-market all derivative instruments on the balance sheet and recognize fair value change in earnings, unless they qualify for the NPNS exception. ASC 815 applies to NRG's energy related commodity contracts, interest rate swaps, foreign exchange contracts and Consumer Financing Program.

Energy-Related Commodities

As of December 31, 2024 and 2023, for purposes of measuring the fair value of derivative instruments, the Company primarily used quoted exchange prices and consensus pricing. Consensus pricing is provided by independent pricing services which are compiled from market makers with longer dated tenors as compared to broker quotes. Prior to the fourth quarter of 2023, the Company valued derivatives based on price quotes from brokers in active markets who regularly facilitate those transactions. The Company started using consensus pricing as it offers data from more market makers and for longer dated tenors as compared to broker quotes, enhances data integrity, and increases transparency. When external prices are not available, NRG uses internal models to determine the fair value. These internal models include assumptions of the future prices of energy commodities based on the specific market in which the energy commodity is being purchased or sold, using externally available forward market pricing curves for all periods possible under the pricing model. These estimations are considered to be critical accounting estimates.

Interest Rate Swaps

NRG is exposed to changes in interest rate through the Company's issuance of variable rate debt. To manage the Company's interest rate risk, NRG enters into interest rate swap agreements. In order to qualify the derivative instruments for hedged transactions, NRG estimates the forecasted borrowings for interest rate swaps occurring within a specified time period.

Foreign Exchange Contracts

In order to mitigate foreign exchange risk primarily associated with the purchase of USD denominated natural gas for the Company's Canadian business, the Company enters into foreign exchange contract agreements.

Consumer Financing Program

The derivative positions for the Company's Consumer Financing Program are valued using a discounted cash flow model, with inputs consisting of available market data, such as market yield discount rates, as well as unobservable internally derived assumptions, such as collateral prepayment rates, collateral default rates and credit loss rates. In summary, the fair value represents an estimate of the present value of the cash flows Vivint Smart Home will be obligated to pay to the third-party financing provider for each component of the derivative.

Certain derivative instruments that meet the criteria for derivative accounting treatment also qualify for a scope exception to derivative accounting, as they are considered to be NPNS. The availability of this exception is based upon the assumption that the Company has the ability and it is probable to deliver or take delivery of the underlying item. These assumptions are based on expected load requirements, internal forecasts of sales and generation and historical physical delivery on contracts. Derivatives that are considered to be NPNS are exempt from derivative accounting treatment and are accounted for under accrual accounting. If it is determined that a transaction designated as NPNS no longer meets the scope exception due to changes in estimates, the related contract would be recorded on the balance sheet at fair value combined with the immediate recognition through earnings.

Income Taxes and Valuation Allowance for Deferred Tax Assets

As of December 31, 2024, NRG's deferred tax assets were primarily the result of U.S. federal and state NOLs, the difference between book and tax basis in property, plant, and equipment, deferred revenues and tax credit carryforwards. The realization of deferred tax assets is dependent upon the Company's ability to generate sufficient future taxable income during the periods in which those temporary differences become deductible, prior to the expiration of the tax attributes. The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events that have been recognized in the Company's financial statements or tax returns and forecasting future profitability by tax jurisdiction.

The Company evaluates its deferred tax assets on a jurisdictional basis to determine whether adjustments to the valuation allowance are appropriate considering changes in facts or circumstances. As of each reporting date, management considers new evidence, both positive and negative, when determining the future realization of the Company's deferred tax assets. Given the Company's current level of pre-tax earnings and forecasted future pre-tax earnings, the Company expects to generate income before taxes in the U.S. in future periods at a level that would fully utilize its U.S. federal NOL carryforwards and the majority of its state NOL carryforwards prior to their expiration.

The Company continues to maintain a valuation allowance of \$144 million as of December 31, 2024 against deferred tax assets consisting of state NOL carryforwards and foreign NOL carryforwards in jurisdictions where the Company does not currently believe that the realization of deferred tax assets is more likely than not. As of December 31, 2023, the Company's valuation allowance balance was \$275 million.

Considerable judgment is required to determine the tax treatment of a particular item that involves interpretations of complex tax laws. The Company is subject to examination by taxing authorities for income tax returns filed in the U.S. federal jurisdiction and various state and foreign jurisdictions, including operations located in Australia and Canada. The Company continues to be under audit for multiple years by taxing authorities in various jurisdictions.

The Company is no longer subject to U.S. federal income tax examinations for years prior to 2021. With few exceptions, state and Canadian income tax examinations are no longer open for years before 2015.

NRG does not intend, nor currently foresee a need, to repatriate funds held at its international operations into the U.S. These funds are deemed to be indefinitely reinvested in its foreign operations and the Company has not changed its assertion with respect to distributions of funds that would require the accrual of U.S. income tax.

Evaluation of Assets for Impairment

In accordance with ASC 360, *Property, Plant, and Equipment* ("ASC 360"), the Company evaluates property, plant and equipment and certain intangible assets for impairment whenever indicators of impairment exist. Examples of such indicators or events include:

- 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 amounts 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.

For assets to be held and used, recoverability is measured by a comparison of the carrying amount of the assets to the undiscounted future net cash flows expected to be generated by the asset, through considering project specific assumptions for long-term power and natural gas prices, escalated future project operating costs and expected plant operations. If the Company determines that the undiscounted cash flows from the asset are less than the carrying amount of the asset, NRG must estimate fair value to determine the amount of any impairment loss. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets, factoring in the different courses of action available to the Company. Generally, fair value will be determined using valuation techniques, such as the present value of expected future cash flows. NRG uses its best estimates in making these evaluations and considers various factors, including forward price curves for energy, fuel 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.

Assets held-for-sale are reported at the lower of the carrying amount or fair value less the cost to sell. The estimation of fair value, whether in conjunction with an asset to be held and used or with an asset held-for-sale, and the evaluation of asset impairment are, by their nature, subjective. The Company considers quoted market prices in active markets to the extent they are available. In the absence of such information, NRG may consider prices of similar assets, consult with brokers or employ other valuation techniques. The Company will also discount the estimated future cash flows associated with the asset using a single interest rate representative of the risk involved with such an investment or asset. The use of these methods involves the same inherent uncertainty of future cash flows as previously discussed with respect to undiscounted cash flows. Actual future market prices and project costs could vary from those used in NRG's estimates and the impact of such variations could be material.

Annually, during the fourth quarter, the Company revises its views of power and fuel prices including the Company's fundamental view for long-term prices, forecasted generation and operating and capital expenditures, in connection with the preparation of its annual budget. Changes to the Company's views of long-term power and fuel prices impact the Company's projections of profitability, based on management's estimate of supply and demand within the sub-markets for its operations and the physical and economic characteristics of each of its businesses.

For further discussion, see Item 15 — Note 10, *Asset Impairments*.

Goodwill and Other Intangible Assets

At December 31, 2024, the Company reported goodwill of \$5.0 billion, consisting of \$3.5 billion from the acquisition of Vivint in 2023, \$1.2 billion from the acquisition of Direct Energy in 2021 and \$0.3 billion from other retail acquisitions.

The Company applies ASC 805, *Business Combinations* ("ASC 805"), and ASC 350, *Intangibles-Goodwill and Other* ("ASC 350") to account for its goodwill and intangible assets. Under these standards, the Company amortizes all finite-lived intangible assets over their respective estimated weighted-average useful lives. Goodwill has an indefinite life and is not amortized. Goodwill is tested for impairment at least annually, or more frequently whenever an event or change in circumstances occurs that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company tests goodwill for impairment at the reporting unit level, which is identified by assessing whether the components of the Company's operating segments constitute businesses for which discrete financial information is available and whether segment management regularly reviews the operating results of those components. The Company performs the annual goodwill impairment assessment as of December 31 or when events or changes in circumstances indicate that the fair value of the reporting unit may be below the carrying amount. The Company may first assess qualitative factors to determine whether it is more likely than not that an impairment has occurred. In the absence of sufficient qualitative factors, the Company performs a

quantitative assessment by determining the fair value of the reporting unit and comparing to its book value. If it is determined that the fair value of a reporting unit is below its carrying amount, the Company's goodwill will be impaired at that time.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the annual goodwill impairment test will prove to be accurate predictions of the future.

For further discussion, see *Evaluation of Assets for Impairment* caption above, and Item 15 — Note 10, *Asset Impairments*.

Business Combinations

NRG accounts for business acquisitions using the acquisition method of accounting prescribed under ASC 805. Under this method, the Company is required to record on its Consolidated Balance Sheets the estimated fair values of the acquired company's assets and liabilities assumed at the acquisition date. The excess of the consideration transferred over the fair value of the net identifiable assets acquired and liabilities assumed is recorded as goodwill. Determining fair values of assets acquired and liabilities assumed requires significant estimates and judgments. Fair value is determined based on the estimated price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The acquired assets and assumed liabilities from the Vivint Smart Home acquisition that involved the most subjectivity in determining fair value consisted of customer relationships, developed technology, trade names, acquired debt and derivative instruments. NRG describes in detail its acquisitions in Item 15 — Note 4, *Acquisitions and Dispositions*, to the Consolidated Financial Statements.

The fair value of the customer relationships, technology and trade names are measured using income-based valuation methodologies, which include certain assumptions such as forecasted future cash flows, customer attrition rates, royalty rates and discount rates. Customer relationships and technology are amortized to depreciation and amortization, ratably based on discounted future cash flows. Trade names are amortized to depreciation and amortization, on a straight line basis.

The acquired Vivint Smart Home debt was measured at fair value using observable market inputs based on interest rates at the acquisition closing date. The difference between the fair value at the acquisition closing date and the principal outstanding was being amortized through interest expense over the remaining term of the debt. On October 30, 2024, the Company repaid in full the outstanding Vivint Term Loans and terminated the revolving credit facility under the Vivint Credit Agreement. For further discussion, see Item 15 — Note 12, *Long-term Debt and Finance Leases*.

The derivative liabilities in connection with the contractual future payment obligations with the financing providers under Vivint Smart Home's Consumer Financing Program were measured at fair value at the acquisition closing date using a discounted cash flow model, with inputs consisting of available market data, such as market yield discount rates, as well as unobservable internally derived assumptions, such as collateral prepayment rates, collateral default rates and credit loss rates. Changes to the fair value are recorded each period through other income, net in the consolidated statement of operations.

Contingencies

NRG 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. Gain contingencies are not recorded until management determines it is certain that the future event will become or does become a reality. Such determinations are subject to interpretations of current facts and circumstances, forecasts of future events, and estimates of the financial impacts of such events. NRG describes in detail its contingencies in Item 15 — Note 22, *Commitments and Contingencies*, to the Consolidated Financial Statements.

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

NRG is exposed to several market risks in the Company's normal business activities. Market risk is the potential loss that may result from market changes associated with the Company's retail operations, merchant power generation, or with an existing or forecasted financial or commodity transactions. The types of market risks the Company is exposed to are commodity price risk, credit risk, liquidity risk, interest rate risk and currency exchange risk. In order to manage these risks, the Company uses various fixed-price forward purchase and sales contracts, futures and option contracts traded on NYMEX and other exchanges, and swaps and options traded in the over-the-counter financial markets to:

- Manage and hedge fixed-price purchase and sales commitments;
- Reduce exposure to the volatility of cash market prices; and
- Hedge fuel requirements for the Company's generating facilities.

Commodity Price Risk

Commodity price risks result from exposures to changes in spot prices, forward prices, volatilities, and correlations between various commodities, such as natural gas, electricity, coal, oil, and emissions credits. NRG manages the commodity price risk of the Company's load servicing obligations and merchant generation operations by entering into various derivative or non-derivative instruments to hedge the variability in future cash flows from forecasted sales and purchases of power and fuel. NRG measures the risk of the Company's portfolio using several analytical methods, including sensitivity tests, scenario tests, stress tests, position reports and VaR. NRG uses a Monte Carlo simulation based VaR model to estimate the potential loss in the fair value of its energy assets and liabilities, which includes generation assets, gas transportation and storage assets, load obligations and bilateral physical and financial transactions, based on historical and forward values for factors such as customer demand, weather, commodity availability and commodity prices. The Company's VaR model is based on a one-day holding period at a 95% confidence interval for the forward 36 months, not including the spot month. The VaR model is not a complete picture of all risks that may affect the Company's results. Certain events such as counterparty defaults, regulatory changes, and extreme weather and prices that deviate significantly from historically observed values are not reflected in the model.

The following table summarizes average, maximum and minimum VaR for NRG's commodity portfolio, calculated using the VaR model for the years ended December 31, 2024 and 2023:

(In millions)	2024		2023	
VaR as of December 31,	\$	71	\$	51
For the year ended December 31,				
Average	\$	61	\$	62
Maximum		75		82
Minimum		50		41

The Company also uses VaR to estimate the potential loss of derivative financial instruments that are subject to mark-to-market accounting. These derivative instruments include transactions that were entered into for both asset management and trading purposes. The VaR for the derivative financial instruments calculated using the diversified VaR model for the entire term of these instruments entered into for both asset management and trading was \$142 million as of December 31, 2024, primarily driven by asset-backed transactions.

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. NRG is exposed to counterparty credit risk through various activities including wholesale sales, fuel purchases and retail supply arrangements, and retail customer credit risk through its retail load activities. Counterparty credit risk and retail customer credit risk are discussed below. See Item 15 — Note 6, *Accounting for Derivative Instruments and Hedging Activities*, to this Annual Report on Form 10-K for discussion regarding credit risk contingent features.

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; (ii) a 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. The Company also has credit protection within various agreements to call on additional collateral support if and when necessary. Cash margin is collected and held at the Company to cover the credit risk of the counterparty until positions settle.

As of December 31, 2024, counterparty credit exposure, excluding credit exposure from RTOs, ISOs, registered commodity exchanges and certain long-term agreements, was \$1.7 billion, of which the Company held collateral (cash and letters of credit) against those positions of \$288 million resulting in a net exposure of \$1.5 billion. NRG periodically receives collateral from counterparties in excess of their exposure. Collateral amounts shown include such excess while net exposure shown excludes excess collateral received. Approximately 69% of the Company's exposure before collateral is expected to roll off by the end of 2026. The following table highlights the net counterparty credit exposure by industry sector and by counterparty credit quality. Net counterparty credit exposure is defined as the aggregate net asset position for NRG with counterparties where netting is permitted under the enabling agreement and includes all cash flow, mark-to-market, NPNS, and non-derivative transactions. As of December 31, 2024, the aggregate credit exposure is shown net of collateral held, and includes amounts net of receivables or payables.

Category	Net Exposure ^{(a) (b)} (% of Total)	
Utilities, energy merchants, marketers and other	74	%
Financial institutions	26	
Total	100	%

Category	Net Exposure ^{(a) (b)} (% of Total)	
Investment grade	55	%
Non-Investment grade/Non-Rated	45	
Total	100	%

(a) Counterparty credit exposure excludes coal transportation contracts because of the unavailability of market prices

(b) The figures in the tables above exclude potential counterparty credit exposure related to RTOs, ISOs, registered commodity exchanges and certain long-term contracts

The Company had no exposure to wholesale counterparties in excess of 10% of the total net exposure discussed above as of December 31, 2024. Changes in hedge positions and market prices will affect credit exposure and counterparty concentration.

RTOs and ISOs

The Company participates in the organized markets of CAISO, ERCOT, AESO, IESO, ISO-NE, MISO, NYISO and PJM, known as RTOs or ISOs. Trading in the majority of these markets is approved by FERC, whereas in the case of ERCOT, it is approved by the PUCT, and whereas in the case of AESO and IESO, both exist provincially with AESO primarily subject to Alberta Utilities Commission and the IESO subject to the Ontario Energy Board. These ISOs may include credit policies that, under certain circumstances, require that losses arising from the default of one member on spot market transactions be shared by the remaining participants. As a result, the counterparty credit risk to these markets is limited to NRG's share of the overall market and are excluded from the above exposures.

Exchange Traded Transactions

The Company enters into commodity transactions on registered exchanges, notably ICE, NYMEX and Nodal. These clearinghouses act as the counterparty and transactions are subject to extensive collateral and margining requirements. As a result, these commodity transactions have limited counterparty credit risk.

Long-Term Contracts

Counterparty credit exposure described above excludes credit risk exposure under certain long-term contracts, primarily solar under Renewable PPAs. As external sources or observable market quotes are not available to estimate such exposure, the Company values 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, 2024, aggregate credit risk exposure managed by NRG to these counterparties was approximately \$868 million for the next five years.

Retail Customer Credit Risk

NRG is exposed to retail credit risk through the Company's retail electricity and gas providers as well as through Vivint Smart Home. Retail credit risk results in losses when a customer fails to pay for services rendered. The losses may result from both nonpayment of customer accounts receivable and the loss of in-the-money forward value. The Company manages retail

credit risk through the use of established credit policies, which include monitoring of the portfolio and the use of credit mitigation measures such as deposits or prepayment arrangements.

As of December 31, 2024, the Company's retail customer credit exposure to Home and Business customers was diversified across many customers and various industries, as well as government entities. Current economic conditions may affect the Company's customers' ability to pay bills in a timely manner, which could increase customer delinquencies and may lead to an increase in credit losses. The Company's provision for credit losses resulting from credit risk was \$314 million, \$251 million and \$11 million for the years ended December 31, 2024, 2023 and 2022, respectively. During the year ended December 31, 2022, the provision for credit losses included the Company's loss mitigation efforts recognized as income of \$126 million related to Winter Storm Uri.

Liquidity Risk

Liquidity risk arises from the general funding needs of the Company's activities and the management of the Company's assets and liabilities. The Company is currently exposed to additional collateral posting if natural gas prices decline, primarily due to the long natural gas equivalent position at various exchanges used to hedge NRG's retail supply load obligations.

Based on a sensitivity analysis for power and gas positions under marginable contracts as of December 31, 2024, a \$0.50 per MMBtu decrease in natural gas prices across the term of the marginable contracts would cause an increase in margin collateral posted of approximately \$1.1 billion and a 1.00 MMBtu/MWh decrease in heat rates for heat rate positions would result in an increase in margin collateral posted of approximately \$359 million. This analysis uses simplified assumptions and is calculated based on portfolio composition and margin-related contract provisions as of December 31, 2024.

Interest Rate Risk

NRG 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 combinations of the variable rate debt and the interest rate derivative instrument. NRG's risk management policies allow the Company to reduce interest rate exposure from variable rate debt obligations. In November 2024, the Company entered into \$700 million of interest rate swaps through 2029 to hedge the floating rate on the Term Loans.

As of December 31, 2024, the Company's debt fair value was \$10.8 billion and carrying value was \$10.9 billion. NRG estimates that a 1% decrease in market interest rates would have increased the fair value of the Company's long-term debt by \$465 million.

Currency Exchange Risk

NRG is subject to transactional exchange rate risk from transactions with customers in countries outside of the U.S., primarily within Canada, as well as from intercompany transactions between affiliates. Transactional exchange rate risk arises from the purchase and sale of goods and services in currencies other than the Company's functional currency or the functional currency of an applicable subsidiary. NRG hedges a portion of its forecasted currency transactions with foreign exchange forward contracts. As of December 31, 2024, NRG is exposed to changes in foreign currency primarily associated with the purchase of U.S. dollar denominated natural gas for its Canadian business and entered into foreign exchange contracts with a notional amount of \$410 million.

The Company is subject to translation exchange rate risk related to the translation of the financial statements of its foreign operations into U.S. dollars. Costs incurred and sales recorded by subsidiaries operating outside of the U.S. are translated into U.S. dollars using exchange rates effective during the respective period. As a result, the Company is exposed to movements in the exchange rates of various currencies against the U.S. dollar, primarily the Canadian and Australian dollars. A hypothetical 10% appreciation in major currencies relative to the U.S. dollar as of December 31, 2024, would have resulted in a decrease of \$3 million to net income within the Consolidated Statement of Operations.

Item 8 — Financial Statements and Supplementary Data

The financial statements and schedules are included in Part IV, Item 15 of this Annual Report on Form 10-K.

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

None.

Item 9A — Controls and Procedures

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

Under the supervision and with the participation of NRG's management, including its principal executive officer, principal financial officer and principal accounting officer, NRG 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. Management's report on the Company's internal control over financial reporting and the report of the Company's independent registered public accounting firm are incorporated under the caption "Management's Report on Internal Control over Financial Reporting" and under the caption "Report of Independent Registered Public Accounting Firm" in this Annual Report on Form 10-K for the fiscal year ended December 31, 2024.

Changes in Internal Control over Financial Reporting

There were no changes in NRG's internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that occurred in the fourth quarter of 2024 that materially affected, or are reasonably likely to materially affect, NRG's internal control over financial reporting.

Inherent Limitations over Internal Controls

NRG'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, 2024.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2024 has been audited by KPMG LLP, the Company's independent registered public accounting firm, as stated in its report which is included in this Annual Report on Form 10-K.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
NRG Energy, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited NRG Energy, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2024 and 2023, the related consolidated statements of operations, comprehensive income/(loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report dated February 26, 2025 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Philadelphia, Pennsylvania
February 26, 2025

Item 9B — Other Information

Director and Officer Trading Arrangements

During the three months ended December 31, 2024, no director or officer of the Company adopted or terminated a 'Rule 10b5-1 trading arrangement' or 'non-Rule 10b5-1 trading arrangement,' as each term is defined in Item 408(a) of Regulation S-K.

Item 9C — Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10 — Directors, Executive Officers and Corporate Governance

Directors and Executive Officers

Information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

Code of Ethics

NRG has adopted a code of ethics entitled "NRG Code of Conduct" that applies to directors, officers and employees, including the chief executive officer and senior financial officers of NRG. It may be accessed through the "Governance" section of the Company's website at www.nrg.com. NRG also elects to disclose the information required by Form 8-K, Item 5.05, "Amendments to the Registrant's Code of Ethics, or Waiver of a Provision of the Code of Ethics," through the Company's website, and such information will remain available on this website for at least a 12-month period. A copy of the "NRG Code of Conduct" is available in print to any stockholder who requests it.

Insider Trading Arrangements and Policies

The Company has adopted a Securities Trading and Non-Disclosure Policy (the "Insider Trading Policy") governing the purchase, sale, and other dispositions of its securities by its directors, officers, employees, and other covered personnel. It also follows procedures for the repurchase of its securities. NRG believes that its Insider Trading Policy and repurchase procedures are reasonably designed to promote compliance with insider trading laws, rules and regulations, and the exchange listing standards applicable to the Company. A copy of NRG's Insider Trading Policy, including any amendments thereto, is filed as Exhibit 19.1 to this Annual Report on Form 10-K.

Other information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

Item 11 — Executive Compensation

Information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

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

Securities Authorized for Issuance under Equity Compensation Plans

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by security holders	2,852,917 (1)	\$ —	13,648,879
Equity compensation plans not approved by security holders	2,877,137 (2)	\$ —	12,557,143
Total	5,730,054	\$ —	26,206,022 (3)

(1) Consists of shares issuable under the NRGLTIP. See Note 20, *Stock-Based Compensation* for a discussion of the NRGLTIP.

(2) Consists of shares issuable under the Vivint LTIP. On March 10, 2023, in connection with the Acquisition, NRG assumed the Vivint LTIP. While the Vivint LTIP was previously approved by stockholders of Vivint Smart Home, Inc., the plan is listed as "not approved" because it was assumed as part of the Acquisition and not subject to approval by NRG stockholders. The Company intends to make subsequent grants under the Vivint LTIP. See Note 20, *Stock-Based Compensation* for a discussion of the Vivint LTIP.

(3) Consists of 7,188,824 shares of common stock under the NRGLTIP, 12,557,143 shares of common stock under the Vivint LTIP and 6,460,055 shares of treasury stock reserved for issuance under the ESPP.

The LTIPs currently provides for grants of restricted stock units, relative performance stock units, deferred stock units and dividend equivalent rights. The Company's directors, officers and employees, as well as other individuals performing services for, or to whom an offer of employment has been extended by the Company, are eligible to receive grants under one or both of the LTIPs. The purpose of the LTIPs is to promote the Company's long-term growth and profitability by providing these individuals with incentives to maximize stockholder value and otherwise contribute to the Company's success and to enable the Company to attract, retain and reward the best available persons for positions of responsibility. The Compensation Committee of the Board of Directors administers the LTIPs.

Other information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

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

Information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

Item 14 — Principal Accounting Fees and Services

Information required by this Item is incorporated by reference to the similarly named section of NRG's Definitive Proxy Statement for its 2025 Annual Meeting of Stockholders.

PART IV

Item 15 — Exhibits, Financial Statement Schedules

(a)(1) Financial Statements

The following consolidated financial statements of NRG Energy, Inc. and related notes thereto, together with the reports thereon of KPMG LLP, Philadelphia, PA, Auditor Firm ID: 185, are included herein:

Consolidated Statements of Operations — Years ended December 31, 2024, 2023, and 2022

Consolidated Statements of Comprehensive Income/(Loss) — Years ended December 31, 2024, 2023, and 2022

Consolidated Balance Sheets — As of December 31, 2024 and 2023

Consolidated Statements of Cash Flows — Years ended December 31, 2024, 2023, and 2022

Consolidated Statements of Stockholders' Equity — Years ended December 31, 2024, 2023, and 2022

Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedule

The following Consolidated Financial Statement Schedule of NRG Energy, Inc. is filed as part of Item 15 of this report and should be read in conjunction with the Consolidated Financial Statements.

Schedule II — Valuation and Qualifying Accounts

All other schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore, have been omitted.

(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

To the Board of Directors and Stockholders
NRG Energy, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of NRG Energy, Inc. and subsidiaries (the Company) as of December 31, 2024 and 2023, the related consolidated statements of operations, comprehensive income/(loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes and financial statement schedule II (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, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 26, 2025 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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 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. 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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of the sufficiency of audit evidence over revenues

As discussed in Note 3 to the consolidated financial statements, the Company had \$28,130 million of revenues. Revenue is derived from various revenue streams in different geographic markets and the Company's processes and related information technology (IT) systems used to record revenue differ for each of these revenue streams.

We identified the evaluation of the sufficiency of audit evidence over revenues as a critical audit matter which required a high degree of auditor judgment due to the number of revenue streams and IT systems involved in the revenue recognition process. This included determining the revenue streams over which procedures were to be performed and evaluating the nature and extent of evidence obtained over the individual revenue streams as well as revenue in the aggregate. It also included the involvement of IT professionals with specialized skills and knowledge to assist in the performance of certain procedures.

The following are the primary procedures we performed to address this critical audit matter. We, with the assistance of IT professionals, applied auditor judgment to determine the revenue streams over which procedures were performed as well as the nature and extent of such procedures. For certain revenue streams over which procedures were performed,

we evaluated the design and tested the operating effectiveness of certain internal controls over the Company's revenue recognition processes. For certain revenue streams, we involved IT professionals, who assisted in testing certain IT applications used by the Company in its revenue recognition processes. In addition, we assessed recorded revenue for a selection of transactions by comparing the amounts recognized to underlying documentation, including contracts with customers, and for certain revenue streams, we performed a software-assisted data analysis to assess certain relationships among revenue transactions. In addition, we evaluated the sufficiency of audit evidence obtained over revenues by assessing the results of procedures performed, including the appropriateness of such evidence.

/s/ KPMG LLP

We have served as the Company's auditor since 2004.

Philadelphia, Pennsylvania
February 26, 2025

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

(In millions, except per share amounts)	For the Year Ended December 31,		
	2024	2023	2022
Revenue			
Revenue	\$ 28,130	\$ 28,823	\$ 31,543
Operating Costs and Expenses			
Cost of operations (excluding depreciation and amortization shown below)	22,100	26,483	27,443
Depreciation and amortization	1,403	1,295	720
Impairment losses	36	26	206
Selling, general and administrative costs (excluding amortization of customer acquisition costs of \$204, \$125 and \$83, respectively, which are included in depreciation and amortization shown separately above)	2,031	1,843	1,145
Provision for credit losses	314	251	11
Acquisition-related transaction and integration costs	30	119	52
Total operating costs and expenses	25,914	30,017	29,577
Gain on sale of assets	208	1,578	52
Operating Income	2,424	384	2,018
Other Income/(Expense)			
Equity in earnings of unconsolidated affiliates	20	16	6
Impairment losses on investments	(7)	(102)	—
Other income, net	44	47	56
(Loss)/Gain on debt extinguishment	(382)	109	—
Interest expense	(651)	(667)	(417)
Total other expense	(976)	(597)	(355)
Income/(Loss) Before Income Taxes	1,448	(213)	1,663
Income tax expense/(benefit)	323	(11)	442
Net Income/(Loss)	1,125	(202)	1,221
Less: Cumulative dividends attributable to Series A Preferred Stock	67	54	—
Net Income/(Loss) Available for Common Stockholders	\$ 1,058	\$ (256)	\$ 1,221
Income/(Loss) Per Share			
Weighted average number of common shares outstanding — basic	206	228	236
Income/(Loss) per Weighted Average Common Share — Basic	\$ 5.14	\$ (1.12)	\$ 5.17
Weighted average number of common shares outstanding — diluted	212	228	236
Income/(Loss) per Weighted Average Common Share — Diluted	\$ 4.99	\$ (1.12)	\$ 5.17

See notes to Consolidated Financial Statements

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Net Income/(Loss)	\$ 1,125	\$ (202)	\$ 1,221
Other Comprehensive (Loss)/Income, net of tax			
Foreign currency translation adjustments	(22)	9	(35)
Defined benefit plans	(4)	30	(16)
Other comprehensive (loss)/income	(26)	39	(51)
Comprehensive Income/(Loss)	<u>\$ 1,099</u>	<u>\$ (163)</u>	<u>\$ 1,170</u>

See notes to Consolidated Financial Statements

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(In millions)	As of December 31,	
	2024	2023
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 966	\$ 541
Funds deposited by counterparties	199	84
Restricted cash	8	24
Accounts receivable, net	3,488	3,542
Inventory	478	607
Derivative instruments	2,686	3,862
Cash collateral paid in support of energy risk management activities	309	441
Prepayments and other current assets	830	626
Total current assets	8,964	9,727
Property, plant and equipment, net	2,021	1,763
Other Assets		
Equity investments in affiliates	45	42
Operating lease right-of-use assets, net	151	179
Goodwill	5,011	5,079
Customer relationships, net	1,538	2,164
Other intangible assets, net	1,370	1,763
Derivative instruments	1,710	2,293
Deferred income taxes	2,067	2,251
Other non-current assets	1,145	777
Total other assets	13,037	14,548
Total Assets	\$ 24,022	\$ 26,038

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS (Continued)

(In millions, except share data)	As of December 31,	
	2024	2023
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Current portion of long-term debt and finance leases	\$ 996	\$ 620
Current portion of operating lease liabilities	66	90
Accounts payable	2,513	2,325
Derivative instruments	2,297	4,019
Cash collateral received in support of energy risk management activities	199	84
Deferred revenue current	711	720
Accrued expenses and other current liabilities	2,031	1,642
Total current liabilities	8,813	9,500
Other Liabilities		
Long-term debt and finance leases	9,812	10,133
Non-current operating lease liabilities	117	128
Derivative instruments	1,107	1,488
Deferred income taxes	12	22
Deferred revenue non-current	862	914
Other non-current liabilities	821	947
Total other liabilities	12,731	13,632
Total Liabilities	21,544	23,132
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock; 10,000,000 shares authorized; 650,000 Series A shares issued and outstanding at December 31, 2024 and 2023 (aggregate liquidation preference \$650)	650	650
Common stock; \$0.01 par value; 500,000,000 shares authorized; 205,064,058 and 267,330,470 shares issued; and 198,604,003 and 208,130,950 shares outstanding at December 31, 2024 and 2023, respectively	2	3
Additional paid-in capital	705	3,416
Retained earnings	1,535	820
Treasury stock, at cost; 6,460,055 and 59,199,520 shares at December 31, 2024 and 2023, respectively	(297)	(1,892)
Accumulated other comprehensive loss	(117)	(91)
Total Stockholders' Equity	2,478	2,906
Total Liabilities and Stockholders' Equity	\$ 24,022	\$ 26,038

See notes to Consolidated Financial Statements

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Cash Flows from Operating Activities			
Net Income/(Loss)	\$ 1,125	\$ (202)	\$ 1,221
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in earnings of unconsolidated affiliates, net of distributions	(13)	(6)	7
Depreciation of property, plant and equipment and amortization of customer relationships and other intangible assets	1,071	1,127	634
Amortization of capitalized contract costs	332	168	86
Accretion of asset retirement obligations	34	27	55
Provision for credit losses	314	251	11
Amortization of nuclear fuel	—	47	54
Amortization of financing costs and debt discounts	39	52	23
Loss/(Gain) on debt extinguishment	382	(109)	—
Amortization of in-the-money contracts and emissions allowances	105	137	158
Amortization of uneamed equity compensation	102	101	28
Net gain on sale of assets and disposal of assets	(192)	(1,559)	(102)
Impairment losses	43	128	206
Changes in derivative instruments	(337)	2,455	(3,221)
Changes in current and deferred income taxes and liability for uncertain tax benefits	165	(92)	382
Changes in collateral deposits in support of risk management activities	245	(1,806)	896
Changes in nuclear decommissioning trust liability	—	—	9
Uplift securitization proceeds received from ERCOT	—	—	689
Cash (used)/provided by changes in other working capital:			
Accounts receivable - trade	(366)	840	(1,560)
Inventory	111	189	(252)
Prepayments and other current assets	(539)	(401)	(69)
Accounts payable	170	(1,455)	1,295
Accrued expenses and other current liabilities	136	360	(29)
Other assets and liabilities	(621)	(473)	(161)
Cash provided/(used) by operating activities	\$ 2,306	\$ (221)	\$ 360
Cash Flows from Investing Activities			
Payments for acquisitions of businesses and assets, net of cash acquired	\$ (38)	\$ (2,523)	\$ (62)
Capital expenditures	(472)	(598)	(367)
Proceeds from sale of assets, net of cash disposed	501	2,007	109
Net purchases of emissions allowances	(18)	(24)	(6)
Proceeds from insurance recoveries for property, plant and equipment, net	3	240	—
Investments in nuclear decommissioning trust fund securities	—	(367)	(454)
Proceeds from sales of nuclear decommissioning trust fund securities	—	355	448
Cash used by investing activities	\$ (24)	\$ (910)	\$ (332)

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Cash Flows from Financing Activities			
Proceeds from issuance of preferred stock, net of fees	\$ —	\$ 635	\$ —
Payments for share repurchase activity and excise tax ^(a)	(935)	(1,150)	(600)
Equivalent shares purchased in lieu of tax withholdings	(50)	(22)	(6)
Payments of dividends to preferred and common stockholders	(405)	(381)	(332)
Proceeds from issuance of long-term debt	3,200	731	—
Payments for current and long-term debt	(3,255)	(523)	(5)
Payments for debt extinguishment costs	(262)	—	—
Payments of debt issuance costs	(45)	(32)	(9)
Net (payments)/receipts from settlement of acquired derivatives that include financing elements	(3)	342	1,995
Proceeds from credit facilities	1,050	3,020	—
Repayments to credit facilities	(1,050)	(3,020)	—
Cash (used)/provided by financing activities	\$ (1,755)	\$ (400)	\$ 1,043
Effect of exchange rate changes on cash and cash equivalents	(3)	2	(3)
Net (Decrease)/Increase in Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash	524	(1,529)	1,068
Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash at Beginning of Period	649	2,178	1,110
Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash at End of Period	\$ 1,173	\$ 649	\$ 2,178

(a) Includes excise tax paid of \$10 million during the year ended December 31, 2024

For further discussion of supplemental cash flow information see Note 25, *Cash Flow Information*

See notes to Consolidated Financial Statements

NRG ENERGY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In millions)	Preferred Stock	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance at December 31, 2021	\$ —	\$ 4	\$ 8,531	\$ 464	\$ (5,273)	\$ (126)	\$ 3,600
Net income				1,221			1,221
Other comprehensive loss						(51)	(51)
Shares reissuance for ESPP			2		4		6
Share repurchases					(595)		(595)
Equity-based awards activity, net ^(a)			24				24
Common stock dividends and dividend equivalents declared ^(b)				(334)			(334)
Adoption of ASU 2020-06			(100)	57			(43)
Balance at December 31, 2022	\$ —	\$ 4	\$ 8,457	\$ 1,408	\$ (5,864)	\$ (177)	\$ 3,828
Net loss				(202)			(202)
Issuance of Series A Preferred Stock	650		(15)				635
Other comprehensive income						39	39
Shares reissuance for ESPP			2		6		8
Share repurchases ^(c)			(117)		(1,043)		(1,160)
Retirement of treasury stock ^(d)		(1)	(5,008)		5,009		—
Equity-based awards activity, net ^(a)			97				97
Common stock dividends and dividend equivalents declared ^(b)				(352)			(352)
Series A Preferred Stock dividends ^(e)				(34)			(34)
Sale of the 44% equity interest in STP						47	47
Balance at December 31, 2023	\$ 650	\$ 3	\$ 3,416	\$ 820	\$ (1,892)	\$ (91)	\$ 2,906
Net income				1,125			1,125
Other comprehensive loss						(26)	(26)
Shares reissuance for ESPP			5		8		13
Share repurchases ^(c)			117		(1,051)		(934)
Retirement of treasury stock ^(d)		(1)	(2,637)		2,638		—
Equity-based awards activity, net ^(a)			57				57
Common stock dividends and dividend equivalents declared ^(b)				(343)			(343)
Series A Preferred Stock dividends ^(e)				(67)			(67)
Capped Call Options ^(f)			(253)				(253)
Balance at December 31, 2024	<u>\$ 650</u>	<u>\$ 2</u>	<u>\$ 705</u>	<u>\$ 1,535</u>	<u>\$ (297)</u>	<u>\$ (117)</u>	<u>\$ 2,478</u>

- (a) Includes \$(50) million, \$(22) million and \$(6) million of equivalent shares purchased in lieu of tax withholding on equity compensation issuances for the years ended December 31, 2024, 2023 and 2022, respectively
(b) Dividends per common share were \$1.63, \$1.51 and \$1.40 for each of the years ended December 31, 2024, 2023 and 2022, respectively
(c) Includes excise tax accrued of \$9 million and \$10 million for the years ended December 31, 2024 and 2023, respectively. For further discussion of the share repurchases, see Item 15 — Note 15, *Capital Structure*
(d) For further discussion of the treasury stock retirements, see Item 15 — Note 15, *Capital Structure*
(e) Dividends per share of Series A Preferred Stock were \$51.25 for each of the periods ended September 15 and March 15, 2024 and \$52.96 for the period ended September 15, 2023
(f) For further discussion of the Capped Call Options, see Item 15 — Note 15, *Capital Structure*

See notes to Consolidated Financial Statements

NRG ENERGY, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 — Nature of Business

General

NRG Energy, Inc., or NRG or the Company, is a leading energy and smart home company fueled by market-leading brands, proprietary technologies, and complementary sales channels. Across the United States and Canada, NRG delivers innovative, sustainable solutions, predominately under the brand names such as NRG, Reliant, Direct Energy, Green Mountain Energy and Vivint, while also advocating for competitive energy markets and customer choice. The Company has a customer base that includes approximately 8 million residential customers (comprised of 6 million retail energy customers and 2 million smart home customers) in addition to commercial, industrial, and wholesale customers, supported by approximately 13 GW of generation as of December 31, 2024.

The Company's business is segmented as follows:

- Texas, which includes all activity related to customer, plant and market operations in Texas, other than Cottonwood;
- East, which includes all activity related to customer, plant and market operations in the East;
- West/Services/Other, which includes the following assets and activities: (i) all activity related to customer, plant and market operations in the West and Canada, and (ii) activity related to the Cottonwood facility and other investments;
- Vivint Smart Home; and
- Corporate activities.

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 U.S. GAAP. The ASC, established by the FASB, is the source of authoritative U.S. 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 U.S. GAAP for SEC registrants.

The consolidated financial statements include NRG's accounts and operations and those of its subsidiaries in which the Company 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, NRG 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 VIE, should be consolidated.

Presentation Adjustments

Beginning in the third quarter of 2024, the Company is recording the amortization of capitalized contracts costs within depreciation and amortization. This change, along with additional financial statement disclosures, is meant to address investor inquiries by enhancing transparency to easier match expenses with revenues. NRG previously recorded amortization of capitalized contract costs related to fulfillment in cost of operations and amortization of capitalized contract costs related to customer acquisition primarily in selling, general and administrative costs in the consolidated statements of operations. Prior years amounts were adjusted for comparative purposes. The adjustments had no impact on the Company's total operating costs and expenses, and total cash flows.

The following table presents adjustments within the consolidated statement of operations for the years ended December 31, 2023 and 2022 related to capitalized contract costs:

(In millions)	As Previously Presented	Presentation Adjustments	As Adjusted
Year ended December 31, 2023			
Cost of operations (excluding depreciation and amortization shown below)	\$ 26,526	\$ (43)	\$ 26,483
Depreciation and amortization	1,127	168	1,295
Selling, general and administrative costs	1,968	(125)	1,843
Year ended December 31, 2022			
Cost of operations (excluding depreciation and amortization shown below)	\$ 27,446	\$ (3)	\$ 27,443
Depreciation and amortization	634	86	720
Selling, general and administrative costs	1,228	(83)	1,145

The following table presents adjustments within the consolidated statement of cash flows for the years ended December 31, 2023 and 2022 related to capitalized contract costs:

(In millions)	As Previously Presented	Presentation Adjustments	As Adjusted
Year ended December 31, 2023			
Cash flows from operating activities:			
Amortization of capitalized contract costs	\$ —	\$ 168	\$ 168
Prepayments and other current assets	(233)	(168)	(401)
Year ended December 31, 2022			
Cash flows from operating activities:			
Amortization of capitalized contract costs	\$ —	\$ 86	\$ 86
Prepayments and other current assets	17	(86)	(69)

Winter Storm Uri Uplift Securitization Proceeds

In May 2021, the Texas Legislature passed House Bill (“HB”) 4492 to mitigate exceptionally high price adders and ancillary service costs incurred by ERCOT LSEs during Winter Storm Uri. HB 4492 authorized ERCOT to obtain \$2.1 billion of financing to distribute to LSEs that were charged and paid to ERCOT those highly priced ancillary service and online reliability deployment price adders during Winter Storm Uri.

In December 2021, ERCOT filed with the PUCT a calculation of each LSE’s share of proceeds based on the settlement methodology. The Company accounted for the proceeds by analogy to the contribution model within ASC 958-605, *Not-for-Profit Entities- Revenue Recognition* and the grant model within IAS 20, *Accounting for Government Grants and Disclosure of Government Assistance*, as a reduction to expenses in the consolidated statements of operations in the 2021 annual period for which the proceeds were intended to compensate. In June 2022, the Company received proceeds of \$689 million from ERCOT in relation with HB 4492.

Credit Losses

In accordance with ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, or ASU No. 2016-13, retail trade receivables are reported on the balance sheet net of the allowance for credit losses within accounts receivables, net. Long-term receivables are recorded net in other non-current assets on the consolidated balance sheet. The Company accrues an allowance for current expected credit losses based on (i) estimates of uncollectible revenues by analyzing accounts receivable aging and current and reasonable forecasts of expected economic factors including, but not limited to, unemployment rates and weather-related events, (ii) historical collections and delinquencies, and (iii) counterparty credit ratings for commercial and industrial customers. The Company writes off customer contract receivable balances against the allowance for credit losses when it is determined a receivable is uncollectible.

The following table presents the activity in the allowance for credit losses for the years ended December 31, 2024, 2023, and 2022:

(In millions)	Year Ended December 31,		
	2024	2023	2022
Beginning balance	\$ 145	\$ 133	\$ 683
Acquired balance from Vivint Smart Home	—	22	—
Provision for credit losses ^(a)	314	251	11
Write-offs	(363)	(313)	(593)
Recoveries collected	38	39	32
Other	18	13	—
Ending balance^(a)	\$ 152	\$ 145	\$ 133

(a) Includes bilateral finance hedging risk of \$(70) million accounted for under ASC 815 for the year ended December 31, 2022

During the year ended December 31, 2022, the provision for credit losses included the Company's loss mitigation efforts recognized as income of \$126 million related to Winter Storm Uri. The increase in write-offs during the year ended December 31, 2022 was primarily due to the resolution of credit losses that occurred during Winter Storm Uri.

Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments with an original maturity of three months or less at the time of purchase.

Funds Deposited by Counterparties

Funds deposited by counterparties consist of cash held by the Company as a result of collateral posting obligations from its counterparties related to NRGs hedging program. The increase in funds deposited by counterparties is driven by the increase in forward positions as a result of increases in natural gas and power prices compared to December 31, 2023. Though some amounts are segregated into separate accounts, not all funds are contractually restricted. Based on the Company's intention, these funds are not available for the payment of general corporate obligations; however, they are available for liquidity management. Depending on market fluctuations and the settlement of the underlying contracts, the Company will refund this collateral to the hedge counterparties pursuant to the terms and conditions of the underlying trades. Since collateral requirements fluctuate daily and the Company cannot predict if any collateral will be held for more than twelve months, the funds deposited by counterparties are classified as a current asset on the Company's balance sheet, with an offsetting liability for this cash collateral received within current liabilities.

Restricted Cash

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

(In millions)	Year Ended December 31,		
	2024	2023	2022
Cash and cash equivalents	\$ 966	\$ 541	\$ 430
Funds deposited by counterparties	199	84	1,708
Restricted cash	8	24	40
Cash and cash equivalents, funds deposited by counterparties and restricted cash shown in the statements of cash flows	\$ 1,173	\$ 649	\$ 2,178

Restricted cash consists primarily of funds held within the Company's projects that are restricted in their use.

Inventory

Inventory is valued at the lower of weighted average cost or market, and consists principally of natural gas, fuel oil, coal, spare parts and finished goods. The Company removes natural gas inventory as goods are delivered to customers and as they are used in the production of electricity or steam. The Company removes fuel oil and coal inventories as they are used in the production of electricity. The Company removes spare parts inventories when they are used for repairs, maintenance or capital projects. The Company expects to recover the natural gas, fuel oil, coal and spare parts costs in the ordinary course of business. Inventory is valued at the lower of cost or net realizable value with cost being determined on a first in first out basis for finished goods and weighted average cost method for all other inventories. The Company removes finished goods inventories as they are

sold to customers. Inventories sold to customers as part of a smart home system are generally capitalized as contract costs. Sales of inventory are classified as an operating activity in the consolidated statements of cash flows.

Property, Plant and Equipment

Property, plant and equipment are stated at cost or, in the case of business acquisitions, acquisition date 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, other than nuclear fuel, is computed using the straight-line method, while nuclear fuel was amortized based on units of production 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, see Note 8, *Property, Plant and Equipment*.

Business Interruption Insurance

The Company carries insurance policies to cover insurable risks including, but not limited to, business interruption. There were no business interruption insurance settlements during the year ended December 31, 2024. As a result of damage at the Limestone 1 and W.A. Parish 8 units, the Company recorded business interruption insurance settlements of \$7 million and \$81 million during the years ended December 31, 2023 and 2022, respectively. Business interruption insurance is recorded to cost of operations in the consolidated statements of operations and cash provided by operating activities in the consolidated statement of cash flows.

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 consolidated statements of operations. Fair values are determined by a variety of valuation methods, including third-party appraisals, sales prices of similar assets and present value techniques.

Investments accounted for by the equity method are reviewed for impairment in accordance with ASC 323, *Investments-Equity Method and Joint Ventures*, or ASC 323, 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. For further discussion of these matters, refer to Note 10, *Asset Impairments*.

Debt Issuance Costs

Debt issuance costs are capitalized and amortized as interest expense on a basis that approximates the effective interest method over the term of the related debt. Debt issuance costs are presented as a direct deduction from the carrying amount of the related debt, or as an asset if the issuance costs relate to revolving debt agreements or certain other financing arrangements.

Intangible Assets

Intangible assets represent contractual rights held by the Company. The Company recognizes specifically identifiable intangible assets including emissions allowances, customer and supply contracts, customer relationships, marketing partnerships, technologies, trade names and fuel contracts when specific rights and contracts are acquired. These intangible assets are amortized based on expected volumes, expected delivery, expected discounted future net cash flows, straight line or units of production basis. As of December 31, 2024 and 2023, the Company had accumulated amortization related to its intangible assets of \$3.6 billion and \$3.0 billion, respectively.

Emission allowances held-for-sale, which are included in other non-current assets on the Company's consolidated balance sheet, are not amortized; they are carried at the lower of cost or fair value and reviewed for impairment in accordance with ASC 360.

For further discussion, see Note 11, *Goodwill and Other Intangibles*.

Goodwill

In accordance with ASC 350, *Intangibles-Goodwill and Other*, or ASC 350, the Company recognizes goodwill for the excess cost of an acquired entity over the net value assigned to assets acquired and liabilities assumed. NRG performs goodwill impairment tests annually, during the fourth quarter, and when events or changes in circumstances indicate that the carrying value may not be recoverable.

The Company may first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. The more-likely-than-not threshold is defined as having a likelihood of more than 50 percent. If it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, there is no goodwill impairment.

In the absence of sufficient qualitative factors indicating that it is more-likely-than-not that no impairment occurred, the Company performs a quantitative assessment by determining the fair value of the reporting unit and comparing the fair value to its book value. If the fair value of the reporting unit exceeds its book value, goodwill of the reporting unit is not considered impaired. If the book value exceeds fair value, the Company recognizes an impairment loss equal to the difference between book value and fair value.

For further discussion of goodwill impairment losses recognized refer to Note 10, *Asset Impairments*.

Capitalized Contract Costs

Capitalized contract costs represent the costs directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related customer contracts. These costs include installed products, commissions, other compensation and the cost of installation of new or upgraded customer contracts. The Company calculates amortization by accumulating all deferred contract costs into separate portfolios based on the initial month of service and amortizes those deferred contract costs on a straight-line basis over the expected period of benefit, consistent with the pattern in which the Company provides services to its customers. The expected period of benefit for customers is approximately five years. The Company updates its estimate of the expected period of benefit periodically and whenever events or circumstances indicate that the expected period of benefit could change significantly. Such changes, if any, are accounted for prospectively as a change in estimate. Amortization of capitalized contract costs are included in depreciation and amortization in the consolidated statements of operations. Contract costs not directly related and incremental to the origination of new contracts, modification of existing contracts or to the fulfillment of the related customer contracts are expensed as incurred.

Depreciation and Amortization

The Company's depreciation and amortization included in the consolidated statement of operations consisted of the following:

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Amortization of capitalized contract costs related to fulfillment	\$ 120	\$ 37	\$ —
Amortization of capitalized contract costs related to customer acquisition	212	131	86
Amortization of customer relationships and other intangible assets	800	870	343
Depreciation of property, plant and equipment	271	257	291
Total depreciation and amortization	\$ 1,403	\$ 1,295	\$ 720

Income Taxes

The Company accounts for income taxes using the liability method in accordance with ASC 740, *Income Taxes*, or ASC 740, which requires that the Company use the asset and liability method of accounting for deferred income taxes and provide deferred income taxes for all significant temporary differences.

The Company has two categories of income tax expense or benefit — current and deferred, as follows:

- Current income tax expense or benefit consists solely of current taxes payable less applicable tax credits, and
- Deferred income tax expense or benefit is the change in the net deferred income tax asset or liability, excluding amounts charged or credited to accumulated other comprehensive income

The Company reports some of its revenues and expenses differently for financial statement purposes than for income tax return purposes, resulting in temporary and permanent differences between the Company's financial statements and income tax returns. The tax effects of such temporary differences are recorded as either deferred income tax assets or deferred income tax liabilities in the Company's consolidated balance sheets. The Company measures its deferred income tax assets and deferred income tax liabilities using income tax rates that are expected to be in effect when the deferred tax is realized.

The Company accounts for uncertain tax positions in accordance with ASC 740, which applies to all tax positions related to income taxes. Under ASC 740, tax benefits are recognized when it is more-likely-than-not that a tax position will be sustained upon examination by the authorities. The benefit recognized from a position is the amount of benefit that has

surpassed the more-likely-than-not threshold, as it is more than 50% likely to be realized upon settlement. The Company recognizes interest and penalties accrued related to uncertain tax benefits as a component of income tax expense.

In accordance with ASC 740 and as discussed further in Note 19, *Income Taxes*, changes to existing net deferred tax assets or valuation allowances or changes to uncertain tax benefits, are recorded to income tax expense/(benefit).

Contract and Emission Credit Amortization

Assets and liabilities recognized through acquisitions related to the purchase and sale of energy and energy-related products in future periods for which the fair value has been determined to be significantly less or more than market are amortized to revenues or cost of operations over the term of each underlying contract based on actual generation and/or contracted volumes.

Emission credits represent the right to emit a specified amount of certain pollutants, including sulfur dioxide, nitrogen oxides and carbon dioxide, over a compliance period. Emission credits held for use are amortized to cost of operations based on the weighted average cost of the allowances held.

Gross Receipts and Sales Taxes

In connection with its retail sales, the Company records gross receipts taxes on a gross basis in revenues and cost of operations in its consolidated statements of operations. During the years ended December 31, 2024, 2023, and 2022, the Company's revenues and cost of operations included gross receipts taxes of \$216 million, \$212 million, and \$218 million, respectively. Additionally, the Company records sales taxes collected from its taxable retail customers and remitted to the various governmental entities on a net basis; thus, there is no impact on the Company's consolidated statement of operations.

Cost of Operations

Cost of operations includes cost of fuel, purchased energy and other costs of sales, mark-to-market for economic hedging activities, contract and emission credit amortization, operations and maintenance, and other cost of operations.

Cost of Fuel, Purchased Energy and Other Cost of Sales

Cost of fuel is primarily the costs associated with procurement, transportation and storage of natural gas, nuclear fuel, oil and coal to operate the generation portfolio, which is expensed as the fuel is consumed. Purchased energy primarily relates to purchases to supply the Company's customer base, which includes spot market purchases, as well as contracts of various quantities and durations, including Renewable PPAs with third-party developers, which are primarily accounted for as NPNS (see further discussion in Derivative Instruments below). Other cost of sales primarily consists of TDSP expenses.

The cost of fuel is based on actual and estimated fuel usage for the applicable reporting period. The cost to deliver energy and related services to customers is based on actual and estimated supply volumes for the applicable reporting period. A portion of the cost of energy, \$284 million, \$240 million, and \$202 million as of December 31, 2024, 2023, and 2022, respectively, was accrued and consisted of estimated transmission and distribution charges not yet billed by the transmission and distribution utilities.

In estimating supply volumes, the Company considers the effects of historical customer volumes, weather factors and usage by customer class. Transmission and distribution delivery fees are estimated using the same method used for electricity sales and services to retail customers. In addition, ISO fees are estimated based on historical trends, estimated supply volumes and initial ISO settlements. Volume estimates are then multiplied by the supply rate and recorded as cost of operations in the applicable reporting period.

Vivint Smart Home Flex Pay

Under the Flex Pay plan ("Flex Pay"), offered by Vivint Smart Home, customers pay separately for smart home products and services (smart home and security). The customer has the ability to pay for Vivint Smart Home products in the following three ways: (i) qualified customers may finance the purchase through third-party financing providers ("Consumer Financing Program" or "CFP"), (ii) Vivint Smart Home generally offers a limited number of customers not eligible for the CFP, but who qualify under Vivint Smart Home underwriting criteria, the option to enter into a retail installment contract directly with Vivint Smart Home or (iii) customers may conduct purchases by check, automatic clearing house payments, credit or debit card or by obtaining short-term financing (generally no more than six-month installment terms) through Vivint Smart Home.

Although customers pay separately for products and services under Flex Pay, the Company has determined that the sale of products and services are one single performance obligation resulting in deferred revenue for the gross amount of products sold. For products financed through the CFP, gross deferred revenues are reduced by (i) any fees the third-party financing provider ("Financing Provider") is contractually entitled to receive at the time of loan origination, and (ii) the present value of expected future payments due to the Financing Providers. Loans are issued on either an installment or revolving basis with repayment terms ranging from 6 to 60 months.

For certain Financing Provider loans:

- Vivint Smart Home pays a monthly fee based on either the average daily outstanding balance of the installment loans, or the number of outstanding loans.
- Vivint Smart Home incurs fees at the time of the loan origination and receives proceeds that are net of these fees.
- Vivint Smart Home also shares liability for credit losses.
- Vivint Smart Home is responsible for reimbursing certain Financing Providers for merchant transaction fees and other associated loan fees.

Due to the nature of these provisions, the Company records a derivative liability ("CFP Derivative") at its fair value when the Financing Provider originates loans to customers, which reduces the amount of estimated revenue recognized on the provision of the services. The derivative liability is reduced as payments are made by Vivint Smart Home to the Financing Provider. Subsequent changes to the fair value of the derivative liability are realized through other income, net in the consolidated statements of operations. For further discussion, see Note 6, *Accounting for Derivative Instruments and Hedging Activities*.

Derivative Instruments

The Company accounts for derivative instruments under ASC 815, which requires the Company to record all derivatives on the balance sheet at fair value and changes in fair value in earnings, unless they qualify for the NPNS exception. The Company's primary derivative instruments are power and natural gas purchase or sales contracts, fuels purchase contracts, the CFP and other energy related commodities used to mitigate variability in earnings due to fluctuation in market prices. In order to mitigate interest rate risk associated with the issuance of the Company's variable rate debt, NRG enters into interest rate swap agreements. In addition, in order to mitigate foreign exchange risk associated with the purchase of USD denominated natural gas for the Company's Canadian business, NRG enters into foreign exchange contract agreements.

As of December 31, 2024 and 2023, the Company did not have derivative instruments that were designated as cash flow or fair value hedges.

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 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.

NRG's trading activities are subject to limits in accordance with the Company's Risk Management Policy. These contracts are recognized on the balance sheet at fair value and changes in the fair value of these derivative instruments are recognized in earnings.

Mark-to-Market for Economic Hedging Activities

NRG enters into derivative instruments to manage price and delivery risk, optimize physical and contractual assets in the portfolio and manage working capital requirements. The mark-to-market for economic hedging activities are recognized to revenues or cost of operations during the reporting period.

Operations and Maintenance and Other Cost of Operations

Operations and maintenance costs include major and other routine preventative (planned outage) and corrective (forced outage) maintenance activities to ensure the safe and reliable operation of the Company's generation portfolio in compliance with all local, state and federal requirements. Operations and maintenance costs are also costs associated with retaining and maintaining the Company's customer base, such as call center support, portfolio maintenance and data analytics. Other cost of operations primarily includes gross receipts taxes, insurance, property taxes and asset retirement obligation expense.

Foreign Currency Translation and Transaction Gains and Losses

The local currencies are generally the functional currency of NRG's foreign operations. Foreign currency denominated assets and liabilities are translated at end-of-period rates of exchange. Revenues, expenses, and cash flows are translated at the weighted-average rates of exchange for the period. The resulting currency translation adjustments are not included in the Company's consolidated statements of operations for the period, but are accumulated and reported as a separate component of stockholders' equity until sale or complete or substantially complete liquidation of the net investment in the foreign entity takes place. Foreign currency transaction gains or losses are reported within other income, net in the Company's consolidated statements of operations. For the years ended December 31, 2024, 2023 and 2022, amounts recognized as foreign currency transaction gains/(losses) were immaterial. The Company's cumulative translation adjustment balances as of December 31, 2024, 2023, and 2022 were \$(72) million, \$(43) million, and \$(55) million, respectively.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of trust funds, accounts receivable, notes receivable, derivatives and investments in debt securities. Trust funds are held in accounts managed by experienced investment advisors. Certain accounts receivable, notes receivable, and derivative instruments are concentrated within entities engaged in the energy industry. These industry concentrations may impact the Company's 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. Receivables and other contractual arrangements are subject to collateral requirements under the terms of enabling agreements. However, the Company believes that the credit risk posed by industry concentration is offset by the diversification and creditworthiness of its customer base. See Note 5, *Fair Value of Financial Instruments*, for a further discussion of derivative concentrations.

Asset Retirement Obligations

The Company accounts for AROs 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 Company capitalizes the asset retirement cost 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. See Note 13, *Asset Retirement Obligations*, for a further discussion of AROs.

Pensions and Other Postretirement Benefits

The Company offers pension benefits through a defined benefit pension plan. In addition, the Company provides postretirement health and welfare benefits for certain groups of employees. The Company accounts for pension and other postretirement benefits in accordance with ASC 715, *Compensation — Retirement Benefits*, or ASC 715. The Company recognizes the funded status of the Company's defined benefit plans in the statement of financial position and records an offset for gains and losses as well as all prior service costs that have not been included as part of the Company's net periodic benefit cost to other comprehensive income. The determination of the Company's obligation and expenses for pension benefits is dependent on the selection of certain assumptions. These assumptions determined by management include the discount rate, the expected rate of return on plan assets and the rate of future compensation increases. The Company's actuarial consultants assist in determining assumptions for such items as retirement age. The assumptions used may differ materially from actual results, which may result in a significant impact to the amount of pension obligation or expense recorded by the Company.

The Company measures the fair value of its pension assets in accordance with ASC 820, *Fair Value Measurements and Disclosures*, or ASC 820. For further discussion, see Note 14, *Benefit Plans and Other Postretirement Benefits*.

Stock-Based Compensation

The Company accounts for its stock-based compensation in accordance with ASC 718, *Compensation — Stock Compensation*, or ASC 718. The fair value of the Company's performance stock units is estimated on the date of grant using a Monte Carlo valuation model. NRG uses the Company's common stock price on the date of grant as the fair value of the Company's deferred stock units. Forfeiture rates are estimated based on an analysis of the Company's historical forfeitures, employment turnover, and expected future behavior. The Company recognizes compensation expense for both graded and cliff vesting awards on a straight-line basis over the requisite service period for the entire award. For further discussion, see Note 20, *Stock-Based Compensation*.

Investments Accounted for by the Equity Method

The Company has investments in domestic energy projects, as well as one Australian project. The equity method of accounting is applied to such investments in affiliates, which include joint ventures and partnerships, 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 domestic partnerships and, generally, in the net income or losses of its Australian project, are 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. For further discussion, see Note 16, *Investments Accounted for by the Equity Method and Variable Interest Entities*.

Sale-Leaseback Arrangements

NRG is party to sale-leaseback arrangements that provide for the sale of certain assets to a third-party and simultaneously leases back the same asset to the Company. If the seller-lessee transfers control of the underlying assets to the buyer-lessor, the arrangement is accounted for under ASC 842-40, *Sale-Leaseback Transactions*. These arrangements are classified as operating leases on the Company's consolidated balance sheets.

Marketing and Advertising Costs

The Company expenses its marketing and advertising costs as incurred and includes them within selling, general and administrative costs. The costs of tangible assets used in advertising campaigns are recorded as fixed assets or deferred advertising costs and amortized as advertising costs over the shorter of the useful life of the asset or the advertising campaign. The Company has several long-term sponsorship arrangements. Payments related to these arrangements are deferred and expensed over the term of the arrangement. Advertising expenses for the years ended December 31, 2024, 2023, and 2022 were \$215 million, \$185 million, and \$82 million, respectively.

Business Combinations

The Company accounts for its business combinations in accordance with ASC 805, *Business Combinations*, or ASC 805, which 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. The Company also recognizes and measures the goodwill acquired or a gain from a bargain purchase in the business combination. In addition, transaction costs are expensed as incurred.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ 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, tax provisions, uncollectible accounts, actuarially determined benefit costs, the valuation of energy commodity contracts, environmental liabilities, legal costs incurred in connection with recorded loss contingencies, and assets acquired and liabilities assumed in business combinations, among others. In addition, estimates are used to test long-lived assets and goodwill 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.

Reclassifications

Certain prior period amounts have been reclassified for comparative purposes. The reclassifications did not affect results from operations, net assets or cash flows.

Recent Accounting Developments - Guidance Adopted in 2024

ASU 2023-07 – In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280) – Improvements to Reportable Segment Disclosures*, or ASU 2023-07. The guidance in ASU 2023-07 enhances reportable segment disclosure requirements by requiring disclosure of significant segment expenses that are regularly provided to the chief operating decision maker and included within each reported measure of segment profit and loss, an amount and description of its composition for other segment items and interim disclosures of a reportable segment's profit or loss and assets. The Company adopted the amendments effective December 31, 2024. Because the amendments update disclosure requirements only, it did not have an impact on the Company's results of operations, cash flows, or statement of financial position.

Recent Accounting Developments - Guidance Not Yet Adopted

ASU 2023-09 – In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740) – Improvements to Income Tax Disclosures*, or ASU 2023-09. The guidance in ASU 2023-09 enhances income tax disclosures by requiring disclosure of specific categories in the effective tax rate reconciliation and additional information for reconciling items that meet a quantitative threshold. Further, the amendments of ASU 2023-09 require certain disclosures on income tax expense and income taxes paid. ASU 2023-09 is effective for annual periods beginning after December 15, 2024, with early adoption permitted. The amendments of ASU 2023-09 may be applied on a prospective or retrospective basis. The Company is currently evaluating the impact of adopting ASU 2023-09 on its disclosures.

ASU 2024-03 – In November 2024, the FASB issued ASU No. 2024-03, *Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40) – Disaggregation of Income Statement Expenses*, or ASU

2024-03. The guidance in ASU 2024-03 requires more detailed information about specified categories of expenses included in certain captions presented on the face of the income statement. This ASU is effective for annual periods beginning after December 15, 2026, and interim periods beginning after December 15, 2027. Early adoption is permitted. The amendments may be applied either (1) prospectively to financial statements issued for reporting periods after the effective date of this ASU or (2) retrospectively to all prior periods presented in the financial statements. The Company is currently evaluating the impact of adopting ASU 2024-03 on its disclosures.

ASU 2024-04 – In November 2024, the FASB issued ASU No. 2024-04, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) – Induced Conversions of Convertible Debt Instruments*, or ASU 2024-04. The guidance in ASU 2024-04 clarifies the requirements related to accounting for the settlement of a debt instrument as an induced conversion when changes are made to conversion features as part of an offer to settle the instrument. This ASU is effective for annual periods beginning after December 15, 2025, with early adoption permitted. The amendments may be applied either (1) prospectively to any settlements of convertible debt instruments that occur after the effective date of this ASU or (2) retrospectively to all prior periods presented in the financial statements, with a cumulative adjustment-effect adjustment to equity. The Company is currently evaluating the impact of adopting ASU 2024-04 on its disclosures.

Note 3 — Revenue Recognition

The Company's policies with respect to its various revenue streams are detailed below. The Company generally 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.

Retail Revenue

Gross revenues for energy sales and services to retail customers are recognized as the Company transfers the promised goods and services to the customer. Payment terms are generally 15 to 60 days. For the majority of its electricity and natural gas contracts, the Company's performance obligation with the customer is satisfied over time and performance obligations for its electricity and natural gas products are recognized as the customer takes possession of the product. The Company also allocates the contract consideration to distinct performance obligations in a contract for which the timing of the revenue recognized is different. Additionally, customer discounts and incentives reduce the contract consideration and are recognized over the term of the contract.

Energy sales and services that have been delivered but not billed by period end are estimated. Accrued unbilled revenues are based on estimates of customer usage since the date of the last meter reading provided by the independent system operators, utilities, or electric distribution companies. Volume estimates are based on daily forecasted volumes and estimated customer usage by class. Unbilled revenues are calculated by multiplying these volume estimates by the applicable rate by customer class. Estimated amounts are adjusted when actual usage is known and billed.

As contracts for retail electricity and natural gas can be for multi-year periods, 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 amount of any unsatisfied performance obligations will vary based on customer usage, which will depend on factors such as weather and customer activity and therefore it is not practicable to estimate such amounts.

Vivint Smart Home Retail Revenue

Vivint Smart Home offers its customers combinations of smart home products and services, which together create an integrated smart home system that allows the Company's customers to monitor, control and protect their homes. As the products and services included in the customer's contract are integrated and highly interdependent, and because the products (including installation) and services must work together to deliver the monitoring, controlling and protection of their home, the Company has concluded that the products and services contracted for by the customer are generally not distinct within the context of the contract and, therefore, constitute a single, combined performance obligation. Revenues for this single, combined performance obligation are recognized on a straight-line basis over the customer's contract term, which is the period in which the parties to the contract have enforceable rights and obligations. The Company has determined that certain contracts that do not require a long-term commitment for monitoring services by the customer contain a material right to renew the contract, because the customer does not have to purchase the products upon renewal. Proceeds allocated to the material right are recognized over the expected period of benefit. The majority of Vivint Smart Home's subscription contracts are five years and are generally non-cancelable. These contracts generally convert into month-to-month agreements at the end of the initial term, while some customers are month-to-month from inception. Payment for Vivint Smart Home services is generally due in advance on a monthly basis, with payment terms up to 30 days. Product sales and other one-time fees are invoiced to customers at time of sale. Revenues for any products or services that are considered separate performance obligations are recognized upon delivery. Payments received or billed in advance are reported as deferred revenues.

Energy Revenue

Both physical and financial transactions consist of revenues billed to a third-party at either market or negotiated contract terms to optimize the financial performance of the Company's generating facilities. Payment terms vary from 5 to 55 days. Electric energy revenue is recognized upon transmission to the customer over time, using the output method for measuring progress of satisfaction of performance obligations. Physical transactions, or the sale of generated electricity to meet supply and demand, are recorded on a gross basis in the Company's consolidated statements of operations. The Company applies the invoicing practical expedient in recognizing energy revenue. Under the practical expedient, revenue is recognized based on the invoiced amount which is equal to the value to the customer of NRG's performance obligation completed to date. Financial transactions used to hedge the sale of electricity are recorded net within revenues in the consolidated statements of operations in accordance with ASC 815.

Ancillary revenues, included in Other revenue, are recognized over time as the obligation is fulfilled, using the output method for measuring progress of satisfaction of performance obligations.

Capacity Revenue

The Company's largest sources of capacity revenues are capacity auctions in PJM and NYISO. Capacity revenues also include revenues billed to a third-party at either market or negotiated contract terms for making installed generation and demand response capacity available in order to satisfy system integrity and reliability requirements. Payment terms vary from 15 to 55 days. Capacity revenues are recognized over time, using the output method for measuring progress of satisfaction of performance obligations. The Company applies the invoicing practical expedient in recognizing capacity revenue. Under the practical expedient, revenue is recognized based on the invoiced amount which is equal to the value to the customer of NRG's performance obligation completed to date.

Performance Obligations

As of December 31, 2024, estimated future fixed fee performance obligations are \$1.6 billion, \$1.2 billion, \$796 million, \$489 million and \$219 million for the fiscal years 2025, 2026, 2027, 2028 and 2029, respectively. These performance obligations include Vivint Smart Home products and services, as well as cleared auction MWs in the PJM, ISO-NE, NYISO and MISO capacity auctions. The cleared auction MWs are subject to penalties for non-performance.

Disaggregated Revenues

The following tables represent the Company's disaggregation of revenue from contracts with customers for the years ended December 31, 2024, 2023, and 2022:

For the Year Ended December 31, 2024

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Retail revenue:						
Home	\$ 6,836	\$ 2,453	\$ 1,750	\$ 1,932	\$ (25)	\$ 12,946
Business	3,564	8,794	1,845	—	—	14,203
Total retail revenue ^(a)	10,400	11,247	3,595	1,932	(25)	27,149
Energy revenue ^(a)	41	242	229	—	(12)	500
Capacity revenue ^(a)	—	156	24	—	(3)	177
Mark-to-market for economic hedging activities ^(b)	—	(23)	16	—	4	(3)
Contract amortization	—	(27)	(2)	—	—	(29)
Other revenue ^(a)	212	112	24	—	(12)	336
Total revenue	10,653	11,707	3,886	1,932	(48)	28,130
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	57	61	—	(1)	117
Less: Realized and unrealized ASC 815 revenue	30	168	75	—	(8)	265
Total revenue from contracts with customers	\$ 10,623	\$ 11,482	\$ 3,750	\$ 1,932	\$ (39)	\$ 27,748

(a) The following table represents the realized revenues related to derivative instruments that are accounted for under ASC 815 and included in the amounts above:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Retail revenue	\$ —	\$ 36	\$ —	\$ —	\$ —	\$ 36
Energy revenue	—	79	63	—	(12)	130
Capacity revenue	—	76	—	—	—	76
Other revenue	30	—	(4)	—	—	26

(b) Revenue relates entirely to unrealized gains and losses on derivative instruments accounted for under ASC 815

For the Year Ended December 31, 2023

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home^(a)	Corporate/Eliminations	Total
Retail revenue:						
Home	\$ 6,538	\$ 2,195	\$ 1,890	\$ 1,549	\$ (1)	\$ 12,171
Business	3,492	9,751	2,053	—	—	15,296
Total retail revenue ^(b)	10,030	11,946	3,943	1,549	(1)	27,467
Energy revenue ^(b)	77	291	185	—	—	553
Capacity revenue ^(b)	—	197	2	—	(2)	197
Mark-to-market for economic hedging activities ^(c)	—	57	103	—	(16)	144
Contract amortization	—	(32)	—	—	—	(32)
Other revenue ^(b)	369	88	48	—	(11)	494
Total revenue	10,476	12,547	4,281	1,549	(30)	28,823
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	17	35	—	—	52
Less: Realized and unrealized ASC 815 revenue	29	364	138	—	(16)	515
Total revenue from contracts with customers	\$ 10,447	\$ 12,166	\$ 4,108	\$ 1,549	\$ (14)	\$ 28,256

(a) Includes results of operations following the acquisition date of March 10, 2023

(b) The following table represents the realized revenues related to derivative instruments that are accounted for under ASC 815 and included in the amounts above:

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home	Corporate/Eliminations	Total
Retail revenue	\$ —	\$ 74	\$ —	\$ —	\$ —	\$ 74
Energy revenue	—	162	13	—	1	176
Capacity revenue	—	73	—	—	—	73
Other revenue	29	(2)	22	—	(1)	48

(c) Revenue relates entirely to unrealized gains and losses on derivative instruments accounted for under ASC 815

For the Year Ended December 31, 2022

(In millions)	Texas	East	West/Services/Other	Corporate/Eliminations	Total
Retail revenue:					
Home	\$ 6,388	\$ 2,088	\$ 2,286	\$ (1)	\$ 10,761
Business	3,229	13,768	1,964	—	18,961
Total retail revenue ^(a)	9,617	15,856	4,250	(1)	29,722
Energy revenue ^(a)	111	641	466	32	1,250
Capacity revenue ^(a)	—	232	40	—	272
Mark-to-market for economic hedging activities ^(b)	2	(30)	(56)	1	(83)
Contract amortization	—	(40)	1	—	(39)
Other revenue ^(a)	327	104	5	(15)	421
Total revenue	10,057	16,763	4,706	17	31,543
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	(7)	41	1	35
Less: Realized and unrealized ASC 815 revenue	(2)	84	(93)	31	20
Total revenue from contracts with customers	\$ 10,059	\$ 16,686	\$ 4,758	\$ (15)	\$ 31,488

(a) The following table represents the realized revenues related to derivative instruments that are accounted for under ASC 815 and included in the amounts above:

(In millions)	Texas	East	West/Services/Other	Corporate/Eliminations	Total
Retail revenue	\$ —	\$ 110	\$ —	\$ —	\$ 110
Energy revenue	—	(31)	(8)	31	(8)
Capacity revenue	—	33	—	—	33
Other revenue	(4)	2	(29)	(1)	(32)

(b) Revenue relates entirely to unrealized gains and losses on derivative instruments accounted for under ASC 815

Contract Balances

The following table reflects the contract assets and liabilities included in the Company's balance sheet as of December 31, 2024 and 2023:

(In millions)	December 31, 2024	December 31, 2023
Capitalized contract costs (included in Prepayments and other current assets and Other non-current assets)	\$ 1,220	\$ 706
Accounts receivable, net - Contracts with customers	3,393	3,395
Accounts receivable, net - Accounted for under topics other than ASC 606	90	136
Accounts receivable, net - Affiliate	5	11
Total accounts receivable, net	\$ 3,488	\$ 3,542
Unbilled revenues (included within Accounts receivable, net - Contracts with customers)	\$ 1,548	\$ 1,493
Deferred revenues ^(a)	\$ 1,573	\$ 1,634

(a) Deferred revenues from contracts with customers as of December 31, 2024 and 2023 were approximately \$1.5 billion and \$1.6 billion, respectively.

The revenue recognized from contracts with customers during the years ended December 31, 2024 and 2023 relating to the deferred revenue balance at the beginning of each period was \$606 million and \$168 million, respectively, which increased primarily due to the acquisition of Vivint Smart Home.

The Company's capitalized contract costs consist of fulfillment costs, commission payments, broker fees and other costs that represent incremental costs of obtaining the contract with customers for which the Company expects to recover. Capitalized contract costs are amortized to depreciation and amortization on a straight-line basis over the expected period of benefit of five years.

When the Company receives consideration from the customer that is in excess of the amount due, such consideration is reclassified to deferred revenue, which represents a contract liability. Smart home products and services performance obligations are recognized over the customer's contract term, which is generally three to five years. Energy contract liabilities are generally recognized to revenue in the next period as the Company satisfies its performance obligations.

Note 4 —Acquisitions and Dispositions

Acquisitions

2023 Acquisition

Vivint Smart Home Acquisition

On March 10, 2023 (the "Acquisition Closing Date"), the Company completed the acquisition of Vivint Smart Home, Inc., pursuant to the Agreement and Plan of Merger, dated as of December 6, 2022, by and among the Company, Vivint Smart Home, Inc. and Jetson Merger Sub, Inc., a wholly-owned subsidiary of the Company ("Merger Sub") pursuant to which Merger Sub merged with and into Vivint Smart Home, Inc., with Vivint Smart Home, Inc. surviving the merger as a wholly-owned subsidiary of the Company. Dedicated to redefining the home experience with intelligent products and services, Vivint Smart Home brought approximately two million subscribers to NRG Vivint Smart Home's single, expandable platform incorporates artificial intelligence and machine learning into its operating system and its vertically integrated business model includes hardware, software, sales, installation, customer service and technical support and professional monitoring, enabling superior subscriber experiences and a complete end-to-end smart home experience. The acquisition accelerated the realization of NRG's consumer-focused growth strategy and creates a leading essential home services platform fueled by market-leading brands, unparalleled insights, proprietary technologies and complementary sales channels.

NRG paid \$12 per share, or approximately \$2.6 billion in cash. The Company funded the acquisition using:

- proceeds of \$724 million from newly issued \$740 million 7.000% Senior Secured First Lien Notes due 2033, net of issuance costs and discount;
- proceeds of \$635 million from newly issued \$650 million 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock, net of issuance costs;
- proceeds of approximately \$900 million drawn from its Revolving Credit Facility and Receivables Securitization Facilities; and
- cash on hand.

Acquisition costs of \$38 million and \$17 million for the years ended December 31, 2023 and 2022, respectively, are included in acquisition-related transaction and integration costs in the Company's consolidated statement of operations.

The acquisition has been recorded as a business combination under ASC 805, with identifiable assets and liabilities acquired recorded at their estimated Acquisition Closing Date fair value. The total consideration of \$2.623 billion includes:

	(In millions)
Vivint Smart Home, Inc. common shares outstanding as of March 10, 2023 of 216,901,639 at \$12.00 per share	\$ 2,603
Other Vivint Smart Home, Inc. equity instruments (Cash out RSUs and PSUs, Stock Appreciation Rights, Private Placement Warrants)	6
Total Cash Consideration	\$ 2,609
Fair value of acquired Vivint Smart Home, Inc. equity awards attributable to pre-combination service	14
Total Consideration	\$ 2,623

The purchase price was allocated as follows as of December 31, 2023:

	(In millions)
Current Assets	
Cash and cash equivalents	\$ 120
Accounts receivable, net	60
Inventory	113
Prepayments and other current assets	37
Total current assets	330
Property, plant and equipment, net	49
Other Assets	
Operating lease right-of-use assets, net	35
Goodwill ^(a)	3,494
Intangible assets, net ^(b) :	
Customer relationships	1,740
Technology	860
Trade names	160
Sales channel contract	10
Intangible assets, net	2,770
Deferred income taxes	382
Other non-current assets	14
Total other assets	6,695
Total Assets	\$ 7,074
Current Liabilities	
Current portion of long-term debt and finance leases	\$ 14
Current portion of operating lease liabilities	13
Accounts payable	109
Derivative instruments	80
Deferred revenue current	518
Accrued expenses and other current liabilities	207
Total current liabilities	941
Other Liabilities	
Long-term debt and finance leases	2,572
Non-current operating lease liabilities	28
Derivative instruments	32
Deferred income taxes	18
Deferred revenue non-current	837
Other non-current liabilities	23
Total other liabilities	3,510
Total Liabilities	\$ 4,451
Vivint Smart Home Purchase Price	\$ 2,623

- (a) Goodwill arising from the acquisition is attributed to the value of the platform acquired, cross-selling opportunities, subscriber growth and the synergies expected from combining the operations of Vivint Smart Home with NRG's existing businesses. None of the goodwill recorded will be deductible for tax purposes
- (b) The weighted average amortization period for total amortizable intangible assets is approximately ten years

Dispositions

2024 Disposition

Sale of Airtron

On September 16, 2024, the Company closed on the sale of its 100% ownership in the Airtron business unit. Proceeds of \$500 million were reduced by working capital and other adjustments of \$20 million, resulting in net proceeds of \$480 million. The Company recorded a gain on the sale of \$204 million within the West/Services/Other region of operations.

2023 Dispositions

Sale of the 44% equity interest in STP

On November 1, 2023, the Company closed on the sale of its 44% equity interest in STP to Constellation Energy Generation ("Constellation"). Proceeds of \$1.75 billion were reduced by working capital and other adjustments of \$96 million, resulting in net proceeds of \$1.654 billion. The Company recorded a gain on the sale of \$1.2 billion within the Texas region of operations. For discussion of the litigation matter related to the transaction, see Note 22, *Commitments and Contingencies*.

Sale of Gregory

On October 2, 2023, the Company closed on the sale of its 100% ownership in the Gregory natural gas generating facility in Texas for \$102 million. The Company recorded a gain on the sale of \$82 million.

Sale of Astoria

On January 6, 2023, the Company closed on the sale of land and related generation assets from the Astoria site, within the East region of operations, for proceeds of \$212 million, subject to transaction fees of \$3 million and certain indemnifications, resulting in a \$199 million gain.

2022 Disposition

Sale of Watson

On June 1, 2022, the Company closed on the sale of its 49% ownership in the Watson natural gas generating facility for \$59 million. The Company recorded a gain on the sale of \$46 million within the West/Services/Other region of operations.

Note 5 — Fair Value of Financial Instruments

For cash and cash equivalents, funds deposited by counterparties, restricted cash, accounts and other receivables, accounts payable and cash collateral paid and received in support of energy risk management activities, 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 value and fair value of the Company's long-term debt, including current portion, is as follows:

(In millions)	As of December 31,			
	2024		2023	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Convertible Senior Notes	\$ 232	\$ 509	\$ 575	\$ 739
Other long-term debt, including current portion	10,648	10,252	10,219	9,835
Total long-term debt, including current portion ^(a)	<u>\$ 10,880</u>	<u>\$ 10,761</u>	<u>\$ 10,794</u>	<u>\$ 10,574</u>

(a) Excludes deferred financing costs, which are recorded as a reduction to long-term debt on the Company's consolidated balance sheets

The fair value of the Company's publicly-traded long-term debt, the Term Loans and the Vivint Senior Secured Term Loan are based on quoted market prices and are classified as Level 2 within the fair value hierarchy.

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. NRG's financial assets and liabilities utilizing Level 1 inputs include active exchange-traded securities, energy derivatives, and trust fund investments.
- 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. NRG's financial assets and liabilities utilizing Level 2 inputs include fixed income securities, exchange-based derivatives, and over the counter derivatives such as swaps, options and forward contracts.
- 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. NRG's financial assets and liabilities utilizing Level 3 inputs include infrequently-traded, non-exchange-based derivatives and commingled investment funds, and are measured using present value pricing models.

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 in its entirety.

Recurring Fair Value Measurements

Derivative assets and liabilities, debt securities, equity securities and trust fund investments, which were comprised of various U.S. debt and equity securities, are carried at fair market value.

The following tables present 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, 2024			
		Fair Value			
		Total	Level 1	Level 2	Level 3
millions)					
Investments in securities (classified within other current and non-current assets)	\$	\$28	\$—	\$28	—
Derivative assets:					
Interest rate contracts		9	—	9	—
Foreign exchange contracts		22	—	22	—
Commodity contracts ^(a)		3,368	528	2,645	195
Equity securities measured using net asset value practical expedient (classified within other non-current assets)		6			
Total assets	\$	<u>3,483</u>	<u>\$28</u>	<u>2,704</u>	<u>195</u>
Derivative liabilities:					
Interest rate contracts	\$	\$3	\$—	\$3	—
Foreign exchange contracts		1	—	1	—
Commodity contracts ^(a)		2,970	432	2,382	156
Consumer Financing Program		203	—	—	203
Total liabilities	\$	<u>3,177</u>	<u>432</u>	<u>2,386</u>	<u>359</u>

(a) Excludes \$997 million of derivative assets and \$227 million of derivative liabilities that were elected as NPNS on October 1, 2024 and are no longer valued at fair value on a recurring basis. For further discussion, see Item 15 — Note 6, *Accounting for Derivative Instruments and Hedging Activities*

millions)		As of December 31, 2023			
		Fair Value			
		Total	Level 1	Level 2	Level 3
Investments in securities (classified within other current and non-current assets)	\$	21	\$—	21	—
Derivative assets:					
Interest rate contracts		12	—	12	—
Foreign exchange contracts		5	—	5	—
Commodity contracts		6,138	1,334	4,470	334
Commodity securities measured using net asset value practical expedient (classified within other non-current assets)		6			
Total assets	\$	6,182	1,334	4,508	334
Derivative liabilities:					
Interest rate contracts	\$	\$	\$—	\$	—
Foreign exchange contracts		9	—	9	—
Commodity contracts		5,356	1,413	3,728	215
Consumer Financing Program		134	—	—	134
Total liabilities	\$	5,507	1,413	3,745	349

The following table reconciles, for the years ended December 31, 2024 and 2023, the beginning and ending balances for financial instruments that are recognized at fair value in the consolidated financial statements using significant unobservable inputs, for commodity derivatives:

(In millions)	Fair Value Measurement Using Significant Unobservable Inputs (Level 3)			
	Commodity Derivatives ^(a)			
	For the Year Ended December 31,			
	2024		2023	
Beginning balance	\$	119	\$	505
Total (losses) realized/unrealized included in earnings		(113)		(164)
Purchases		42		42
Transfers into Level 3 ^(b)		2		78
Transfers out of Level 3 ^{(b)(c)}		(11)		(342)
Ending balance	\$	39	\$	119
(Losses) for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held as of year-end	\$	(55)	\$	(46)

(a) Consists of derivatives assets and liabilities, net, excluding derivative liabilities from Consumer Financing Program, which are presented in a separate table below

(b) Transfers into/out of Level 3 are related to the availability of consensus pricing and external broker quotes, and are valued as of the end of the reporting period. Except for the transfers out of Level 3 noted below, all other transfers into/out of Level 3 are from/to Level 2

(c) For the year ended December 31, 2023, due to the change to use consensus pricing, there was a decrease in the number of contracts valued with prices provided by models and other valuation techniques, which resulted in a large transfer out of Level 3

Realized and unrealized gains and losses included in earnings that are related to the commodity derivatives are recorded in revenues and cost of operations.

The following table reconciles, for the years ended December 31, 2024 and 2023, the beginning and ending balances of the contractual obligations from the Consumer Financing Program that are recognized at fair value in the condensed consolidated financial statements, using significant unobservable inputs:

(In millions)	Fair Value Measurement Using Significant Unobservable Inputs (Level 3)	
	Consumer Financing Program	
	For the Year Ended December 31,	
	2024	2023
Beginning balance	\$ (134)	\$ —
Contractual obligations added from the acquisition of Vivint Smart Home	—	(112)
New contractual obligations	(147)	(68)
Settlements	92	62
Total losses included in earnings	(14)	(16)
Ending balance	<u>\$ (203)</u>	<u>\$ (134)</u>

Gains and losses that are related to the Consumer Financing Program derivative are recorded in other income, net.

Derivative fair value measurements

The Company's contracts consist of non-exchange-traded contracts valued using prices provided by external sources and exchange-traded contracts with readily available quoted market prices. Beginning in of the fourth quarter of 2023, the fair value of non-exchange traded contracts were based on consensus pricing provided by independent pricing services. The pricing data was compiled from market makers with longer dated tenors as compared to broker quotes, enhancing reliability and increasing transparency.

Prior to the fourth quarter of 2023, the Company valued derivatives based on price quotes from brokers in active markets who regularly facilitate those transactions. For the majority of markets that NRG participates in, the Company would receive broker quotes from multiple sources and reflected the average of the bid-ask mid-point prices. The terms for which such price information is available vary by commodity, region and product. The Company believes both sources of price quotes are executable.

The remainder of the assets and liabilities represents contracts for which external sources or observable market quotes are not available. These contracts are valued based on various valuation 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. As of December 31, 2024, contracts valued with prices provided by models and other valuation techniques make up 6% of derivative assets and 11% of derivative liabilities. The fair value of each contract is discounted using a risk free interest rate. In addition, the Company applies a credit reserve to reflect credit risk, which for foreign exchange contracts and interest rate swaps is calculated utilizing the bilateral method based on published default probabilities. For commodities, to the extent that NRGs 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 NRGs default swap rate. For foreign exchange contracts, 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 NRGs liabilities or that a market participant would be willing to pay for NRGs assets. As of December 31, 2024, the credit reserve resulted in a \$1 million decrease primarily within cost of operations. As of December 31, 2023, the credit reserve resulted in \$18 million decrease primarily within cost of operations.

The fair values in each category reflect the level of forward prices and volatility factors as of December 31, 2024 and may change as a result of changes in these factors. Management uses its best estimates to determine the fair value of commodity and derivative contracts NRG holds and sells. These estimates consider various factors including closing exchange, consensus and over-the-counter price quotations, time value, volatility factors and credit exposure. It is possible, however, that future market prices could vary from those used in recording assets and liabilities from energy marketing and trading activities and such variations could be material.

NRG's significant positions classified as Level 3 include physical and financial natural gas, power, capacity contracts and renewable energy certificates executed in illiquid markets as well as financial transmission rights ("FTRs"). The significant unobservable inputs used in developing fair value include illiquid natural gas and power location pricing, which is derived as a basis to liquid locations. The basis spread is based on observable market data when available or derived from historic prices and forward market prices from similar observable markets when not available. Forward capacity prices are based on market information, forecasted future electricity demand and supply, past auctions and internally developed pricing models. Renewable energy certificate prices are based on market information and internally developed pricing models. For FTRs, NRG uses the most recent auction prices to derive the fair value. The Consumer Financing Program derivatives are valued using a discounted cash flow model, with inputs consisting of available market data, such as market yield discount rates, as well as unobservable internally derived assumptions, such as collateral prepayment rates, collateral default rates and credit loss rates.

The following tables quantify the significant unobservable inputs used in developing the fair value of the Company's Level 3 positions as of December 31, 2024 and 2023:

(in millions, except as noted)	Significant Unobservable Inputs						
	December 31, 2024						
	Fair Value			Significant Unobservable Input	Input/Range		
	Assets	Liabilities	Valuation Technique		Low	High	Weighted Average
Natural Gas Contracts	\$ 56	\$ 15	Discounted Cash Flow	Forward Market Price (\$ per MMBtu)	\$ 2	\$ 27	\$ 4
Power Contracts	57	86	Discounted Cash Flow	Forward Market Price (\$ per MWh)	0	109	39
Capacity Contracts	34	13	Discounted Cash Flow	Forward Market Price (\$ per MW/Day)	16	510	220
Renewable Energy Certificates	30	14	Discounted Cash Flow	Forward Market Price (\$ per Certificate)	2	375	15
FTRs	18	28	Discounted Cash Flow	Auction Prices (\$ per MWh)	(50)	16,180	0
Consumer Financing Program	—	203	Discounted Cash Flow	Collateral Default Rates	0.52 %	76.80 %	11.71 %
			Discounted Cash Flow	Collateral Prepayment Rates	2.00 %	3.00 %	2.83 %
			Discounted Cash Flow	Credit Loss Rates	6.00 %	60.00 %	14.22 %
	<u>\$ 195</u>	<u>\$ 359</u>					

	Significant Unobservable Inputs							
	December 31, 2023							
	Fair Value					Input/Range		
(in millions, except as noted)	Assets	Liabilities	Valuation Technique	Significant Unobservable Input	Low	High	Weighted Average	
Natural Gas Contracts	\$ 39	\$ 65	Discounted Cash Flow	Forward Market Price (\$ per MMBtu)	\$ 1	\$ 15	\$ 3	
Power Contracts	197	66	Discounted Cash Flow	Forward Market Price (\$ per MWh)	1	210	47	
Capacity Contracts	21	33	Discounted Cash Flow	Forward Market Price (\$ per MW/Day)	49	658	285	
Renewable Energy Certificates	58	14	Discounted Cash Flow	Forward Market Price (\$ per Certificate)	2	320	15	
FTRs	19	37	Discounted Cash Flow	Auction Prices (\$ per MWh)	(58)	252	0	
Consumer Financing Program	—	134	Discounted Cash Flow	Collateral Default Rates	0.43 %	93.30 %	8.12 %	
			Discounted Cash Flow	Collateral Prepayment Rates	2.00 %	3.00 %	2.95 %	
			Discounted Cash Flow	Credit Loss Rates	6.00 %	60.00 %	12.57 %	
	\$ 334	\$ 349						

The following table provides sensitivity of fair value measurements to increases/(decreases) in significant unobservable inputs as of December 31, 2024 and 2023:

Significant Unobservable Input	Position	Change In Input	Impact on Fair Value Measurement
Forward Market Price Natural Gas/Power/Capacity/Renewable Energy Certificates	Buy	Increase/(Decrease)	Higher/(Lower)
Forward Market Price Natural Gas/Power/Capacity/Renewable Energy Certificates	Sell	Increase/(Decrease)	Lower/(Higher)
FTR Prices	Buy	Increase/(Decrease)	Higher/(Lower)
FTR Prices	Sell	Increase/(Decrease)	Lower/(Higher)
Collateral Default Rates	n/a	Increase/(Decrease)	Higher/(Lower)
Collateral Prepayment Rates	n/a	Increase/(Decrease)	Lower/(Higher)
Credit Loss Rates	n/a	Increase/(Decrease)	Higher/(Lower)

Under the guidance of ASC 815, entities may choose to offset cash collateral posted or received against the fair value of derivative positions executed with the same counterparties under the same master netting agreements. The Company has chosen not to offset positions as defined in ASC 815. As of December 31, 2024, the Company recorded \$309 million of cash collateral posted and \$199 million of cash collateral received on its balance sheet.

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) a 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. The Company also has credit protection within various agreements to call on additional collateral support if and when necessary. Cash margin is collected and held at the Company to cover the credit risk of the counterparty until positions settle.

Counterparty Credit Risk

As of December 31, 2024, counterparty credit exposure, excluding credit exposure from RTOs, ISOs, and registered commodity exchanges and certain long-term agreements, was \$1.7 billion and NRG held collateral (cash and letters of credit) against those positions of \$288 million, resulting in a net exposure of \$1.5 billion. NRG periodically receives collateral from counterparties in excess of their exposure. Collateral amounts shown include such excess while net exposure shown excludes excess collateral received. Approximately 69% of the Company's exposure before collateral is expected to roll off by the end of 2026. Counterparty credit exposure is valued through observable market quotes and discounted at a risk free interest rate. The following tables highlight net counterparty credit exposure by industry sector and by counterparty credit quality. Net counterparty credit exposure is defined as the aggregate net asset position for NRG with counterparties where netting is permitted under the enabling agreement and includes all cash flow, mark-to-market and NPNS, and non-derivative transactions. The exposure is shown net of collateral held and includes amounts net of receivables or payables.

Category	Net Exposure ^{(a) (b)} (% of Total)
Utilities, energy merchants, marketers and other	74 %
Financial institutions	26
Total	100 %

Category	Net Exposure ^{(a) (b)} (% of Total)
Investment grade	55 %
Non-Investment grade/Non-Rated	45
Total	100 %

(a) Counterparty credit exposure excludes coal transportation contracts because of the unavailability of market prices

(b) The figures in the tables above exclude potential counterparty credit exposure related to RTOs, ISOs, registered commodity exchanges and certain long term contracts

The Company had no exposure to wholesale counterparties in excess of 10% of the total net exposure discussed above as of December 31, 2024. Changes in hedge positions and market prices will affect credit exposure and counterparty concentration.

RTOs and ISOs

The Company participates in the organized markets of CAISO, ERCOT, AESO, IESO, ISO-NE, MISO, NYISO and PJM, known as RTOs or ISOs. Trading in the majority of these markets is approved by FERC, whereas in the case of ERCOT, it is approved by the PUCT, and whereas in the case of AESO and IESO, both exist provincially with AESO primarily subject to Alberta Utilities Commission and the IESO subject to the Ontario Energy Board. These ISOs may include credit policies that, under certain circumstances, require that losses arising from the default of one member on spot market transactions be shared by the remaining participants. As a result, the counterparty credit risk to these markets is limited to NRG's share of the overall market and are excluded from the above exposures.

Exchange Traded Transactions

The Company enters into commodity transactions on registered exchanges, notably ICE, NYMEX and Nodal. These clearinghouses act as the counterparty and transactions are subject to extensive collateral and margining requirements. As a result, these commodity transactions have limited counterparty credit risk.

Long-Term Contracts

Counterparty credit exposure described above excludes credit risk exposure under certain long term contracts, primarily solar under Renewable PPAs. As external sources or observable market quotes are not always available to estimate such exposure, the Company values 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, 2024, aggregate credit risk exposure managed by NRG to these counterparties was approximately \$868 million for the next five years.

Retail Customer Credit Risk

The Company is exposed to retail credit risk through the Company's retail electricity and gas providers, which serve Home and Business customers. Retail credit risk results in losses when a customer fails to pay for services rendered. The losses may result from both nonpayment of customer accounts receivable and the loss of in-the-money forward value. The Company manages retail credit risk through the use of established credit policies that include monitoring of the portfolio and the use of credit mitigation measures such as deposits or prepayment arrangements.

As of December 31, 2024, the Company's retail customer credit exposure to Home and Business customers was diversified across many customers and various industries, as well as government entities. Current economic conditions may affect the Company's customers' ability to pay bills in a timely manner, which could increase customer delinquencies and may lead to an increase in credit losses. The Company's provision for credit losses was \$314 million, \$251 million, and \$11 million for the years ended December 31, 2024, 2023, and 2022, respectively. During the year ended December 31, 2022, the provision for credit losses included the Company's loss mitigation efforts recognized as income of \$126 million related to Winter Storm Uri.

Note 6 — 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, 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 NRGs energy related commodity contracts, foreign exchange contracts, interest rate swaps and Consumer Financing Program.

As the Company engages principally in the trading and marketing of its generation assets and retail operations, some of NRGs commercial activities qualify for NPNS accounting. Most of the retail load contracts either qualify for the NPNS exception or fail to meet the criteria for a derivative and the majority of the retail supply and fuels supply contracts are recorded under mark-to-market accounting. All of NRGs hedging and trading activities are subject to limits within the Company's Risk Management Policy.

On October 1, 2024, the Company elected NPNS for certain existing derivative contracts. Upon election of NPNS, the Company discontinued derivative accounting treatment and will no longer remeasure the derivative contracts at fair value each reporting period. The fair values of these derivative contracts were frozen as of October 1, 2024 and the Company is derecognizing the fair values to earnings at the same time as the contracts mature. The values of these contracts are included in Derivative instruments captions in the Consolidated Balance Sheets. Subsequent to the election date, costs associated with these contracts will be recorded when the underlying physical transaction is delivered. These derivative contracts extend through 2036.

Energy-Related Commodities

To manage the commodity price risk associated with the Company's competitive supply activities and the price risk associated with wholesale power sales from the Company's electric generation facilities and retail power and gas sales from NRGs retail operations, NRG enters into a variety of derivative and non-derivative hedging instruments, utilizing the following:

- Forward contracts, which commit NRG to purchase or sell energy commodities or fuels in the future;
- Futures contracts, which are exchange-traded standardized commitments to purchase or sell a commodity or financial instrument;
- Swap agreements, which require payments to or from counterparties based upon the differential between two prices for a predetermined contractual, or notional, quantity;
- Option contracts, which convey to the option holder the right but not the obligation to purchase or sell a commodity; and
- Weather derivative products used to mitigate a portion of lost revenue due to weather.

The objectives for entering into derivative contracts designated as hedges include:

- Fixing the price of a portion of anticipated power and gas purchases for the Company's retail sales;
- Fixing the price for a portion of anticipated future electricity sales that provides an acceptable return on the Company's electric generation operations; and

- Fixing the price of a portion of anticipated fuel purchases for the operation of the Company's power plants.

These contracts are recognized on the balance sheet at fair value and changes in the fair value of these derivative financial instruments are recognized in earnings.

As of December 31, 2024, NRG's derivative assets and liabilities consisted primarily of the following:

- Forward and financial contracts for the purchase/sale of electricity and related products economically hedging NRGs generation assets' forecasted output or NRGs retail load obligations through 2034;
- Forward and financial contracts for the purchase of fuel commodities relating to the forecasted usage of NRGs generation assets through 2026;
- Other energy derivatives instruments extending through 2029.

Also, as of December 31, 2024, NRG 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:

- Load-following forward electric sale contracts extending through 2037;
- Load-following forward natural gas purchase and sale contracts extending through 2032;
- Power tolling contracts through 2036;
- Coal purchase contracts through 2027;
- Power transmission contracts through 2030;
- Natural gas transportation contracts through 2034;
- Natural gas storage agreements through 2030; and
- Coal transportation contracts through 2029.

Foreign Exchange Contracts

In order to mitigate foreign exchange risk primarily associated with the purchase of USD denominated natural gas for the Company's Canadian business, NRG enters into foreign exchange contract agreements through 2028.

Interest Rate Swaps

NRG is exposed to changes in interest rate through the Company's issuance of variable rate debt. To manage the Company's interest rate risk, NRG enters into interest rate swap agreements. The Company had \$1.0 billion of interest rate swaps extending through 2027 to hedge the floating rate of the Vivint Term Loans and interest rate swaps with a total nominal value of \$700 million extending through 2029 to hedge the floating rate of the Term Loans which were terminated in November 2024. In November 2024, in connection with the amendment of the Term Loans, the Company entered into \$700 million of interest rate swaps through 2029 to hedge its floating rate.

Consumer Financing Program

Under the Consumer Financing Program, Vivint Smart Home pays a monthly fee to Financing Providers based on either the average daily outstanding balance of the loans or the number of outstanding loans. For certain loans, Vivint Smart Home incurs fees at the time of the loan origination and receives proceeds that are net of these fees. Vivint Smart Home also shares the liability for credit losses, depending on the credit quality of the customer. Due to the nature of certain provisions under the Consumer Financing Program, the Company records a derivative liability that is not designated as a hedging instrument and is adjusted to fair value, measured using the present value of the estimated future payments. Changes to the fair value are recorded through other income, net in the consolidated statement of operations. The following represent the contractual future payment obligations with the Financing Providers under the Consumer Financing Program that are components of the derivative:

- Vivint Smart Home pays either a monthly fee based on the average daily outstanding balance of the loans, or the number of outstanding loans, depending on the Financing Provider;
- Vivint Smart Home shares the liability for credit losses depending on the credit quality of the customer; and
- Vivint Smart Home pays transactional fees associated with customer payment processing.

The derivative is classified as a Level 3 instrument. The derivative positions are valued using a discounted cash flow model, with inputs consisting of available market data, such as market yield discount rates, as well as unobservable internally derived assumptions, such as collateral prepayment rates, collateral default rates and credit loss rates. In summary, the fair value represents an estimate of the present value of the cash flows Vivint Smart Home will be obligated to pay to the Financing Provider for each component of the derivative.

Volumetric Underlying Derivative Transactions

The following table summarizes the net notional volume buy/(sell) of NRGs open derivative transactions broken out by commodity, excluding those derivatives that qualified for the NPNS exception as of December 31, 2024 and 2023. Option contracts are reflected using delta volume. Delta volume equals the notional volume of an option adjusted for the probability that the option will be in-the-money at its expiration date.

Category	Units	Total Volume (In millions)	
		December 31, 2024	December 31, 2023
Emissions	Short Ton	1	—
Renewables Energy Certificates	Certificates	13	12
Coal	Short Ton	10	9
Natural Gas	MMBtu	861	838
Power	MWh	91	201
Interest	Dollars	700	1,000
Foreign Exchange	Dollars	410	548
Consumer Financing Program	Dollars	1,219	1,116

Fair Value of Derivative Instruments

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

(In millions)	Fair Value			
	Derivative Assets		Derivative Liabilities	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Derivatives Not Designated as Cash Flow or Fair Value Hedges:				
Interest rate contracts - current	\$ —	\$ 12	\$ 3	\$ —
Interest rate contracts - long-term	9	—	—	8
Foreign exchange contracts - current	15	3	—	4
Foreign exchange contracts - long-term	7	2	1	5
Commodity contracts - current	2,295	3,847	2,067	3,922
Commodity contracts - long-term	1,073	2,291	903	1,434
Consumer Financing Program - current	—	—	137	93
Consumer Financing Program - long-term	—	—	66	41
Derivatives Not Designated as Cash Flow or Fair Value Hedges	\$ 3,399	\$ 6,155	\$ 3,177	\$ 5,507
Deferred gains/losses on NPNS contracts - current	376	—	90	—
Deferred gains/losses on NPNS contracts - long-term	621	—	137	—
Deferred gains/losses on NPNS contracts^(a)	\$ 997	\$ —	\$ 227	\$ —
Total Derivatives Not Designated as Cash Flow or Fair Value Hedges	\$ 4,396	\$ 6,155	\$ 3,404	\$ 5,507

(a) Balances related to certain derivative contracts that were previously accounted for as derivative contracts following the election of the NPNS exemption and the discontinuance of derivative accounting treatment as of the election date

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. In addition, collateral received or paid on the Company's derivative assets or liabilities are recorded on a separate line item on the balance sheet. The following table summarizes the offsetting derivatives by counterparty master agreement level and collateral received or paid:

(In millions)	Gross Amounts Not Offset in the Statement of Financial Position			
	Gross Amounts of Recognized Assets/Liabilities	Derivative Instruments	Cash Collateral (Held)/Posted	Net Amount
As of December 31, 2024				
Interest rate contracts:				
Derivative assets	\$ 9	\$ (3)	\$ —	\$ 6
Derivative liabilities	(3)	3	—	—
Total interest rate contracts	6	—	—	6
Foreign exchange contracts:				
Derivative assets	\$ 22	\$ (1)	\$ —	\$ 21
Derivative liabilities	(1)	1	—	—
Total foreign exchange contracts	\$ 21	\$ —	\$ —	\$ 21
Commodity contracts:				
Derivative assets	\$ 4,365	\$ (2,992)	\$ (168)	\$ 1,205
Derivative liabilities	(3,197)	2,992	61	(144)
Total commodity contracts	\$ 1,168	\$ —	\$ (107)	\$ 1,061
Consumer Financing Program:				
Derivative liabilities	\$ (203)	\$ —	\$ —	\$ (203)
Total derivative instruments	\$ 992	\$ —	\$ (107)	\$ 885

(In millions)	Gross Amounts Not Offset in the Statement of Financial Position			
	Gross Amounts of Recognized Assets/Liabilities	Derivative Instruments	Cash Collateral (Held)/Posted	Net Amount
As of December 31, 2023				
Interest rate contracts:				
Derivative assets	\$ 12	\$ (8)	\$ —	\$ 4
Derivative liabilities	(8)	8	—	—
Total interest rate contracts	4	—	—	4
Foreign exchange contracts:				
Derivative assets	\$ 5	\$ (5)	\$ —	\$ —
Derivative liabilities	(9)	5	—	(4)
Total foreign exchange contracts	\$ (4)	\$ —	\$ —	\$ (4)
Commodity contracts:				
Derivative assets	\$ 6,138	\$ (4,926)	\$ (74)	\$ 1,138
Derivative liabilities	(5,356)	4,926	145	(285)
Total commodity contracts	\$ 782	\$ —	\$ 71	\$ 853
Consumer Financing Program:				
Derivative liabilities	\$ (134)	\$ —	\$ —	\$ (134)
Total derivative instruments	\$ 648	\$ —	\$ 71	\$ 719

Impact of Derivative Instruments on the Statement of Operations

Unrealized gains and losses associated with changes in the fair value of derivative instruments that are not accounted for as cash flow hedges are reflected in current period results of operations.

The following tables summarize the pre-tax effects of economic hedges that have not been designated as cash flow hedges or fair value hedges and trading activity on the Company's statement of operations. The effect of foreign exchange and commodity hedges is included within revenues and cost of operations. The effect of the interest rate contracts is included within interest expense. The effect of the Consumer Financing Program is included in other income, net.

(In millions)	Year Ended December 31,		
	2024	2023	2022
Unrealized mark-to-market results			
Reversal of previously recognized unrealized losses/(gains) on settled positions related to economic hedges ^(a)	\$ 106	\$ (1,734)	\$ (1,232)
Reversal of acquired loss positions related to economic hedges	5	20	2
Net unrealized gains/(losses) on open positions related to economic hedges	95	(1,149)	2,478
Total unrealized mark-to-market gains/(losses) for economic hedging activities	206	(2,863)	1,248
Reversal of previously recognized unrealized (gains)/losses on settled positions related to trading activity	(1)	13	13
Net unrealized gains/(losses) on open positions related to trading activity	2	25	(17)
Total unrealized mark-to-market gains/(losses) for trading activity	1	38	(4)
Total unrealized gains/(losses) - commodities and foreign exchange	\$ 207	\$ (2,825)	\$ 1,244

(a) December 31, 2024 balance includes \$37 million related to derivative contracts that were elected as NPNS on October 1, 2024 and are no longer valued at fair value on a recurring basis

(In millions)	Year Ended December 31,		
	2024	2023	2022
Total impact to statement of operations - interest rate contracts	\$ 3	\$ 4	\$ —
Unrealized (losses)/gains included in revenues - commodities	\$ (2)	\$ 182	\$ (87)
Unrealized gains/(losses) included in cost of operations - commodities	186	(2,988)	1,315
Unrealized gains/(losses) included in cost of operations - foreign exchange	23	(19)	16
Total impact to statement of operations - commodities and foreign exchange	\$ 207	\$ (2,825)	\$ 1,244
Total impact to statement of operations - Consumer Financing Program	\$ (14)	\$ (16)	\$ —

The reversals of acquired loss/(gain) positions were valued based upon the forward prices on the acquisition date. The roll-off amounts were offset by realized gains or losses at the settled prices and are reflected in revenue or cost of operations during the same period.

The gains from open economic hedge positions of \$95 million for the year ended December 31, 2024 was primarily the result of an increase in the value of forward positions as a result of increases in natural gas and power prices in the East.

The loss from open economic hedge positions of \$1.1 billion for the year ended December 31, 2023 was primarily the result of a decrease in the value of forward positions as a result of decreases in natural gas and power prices in the East and West.

The gains from open economic hedge positions of \$2.5 billion for the year ended December 31, 2022 was primarily the result of an increase in the value of forward positions as a result of increases in natural gas and power prices.

Credit Risk Related Contingent Features

Certain of the Company's hedging and trading agreements contain provisions that entitle the counterparty to demand that the Company post additional collateral if the counterparty determines that there has been deterioration in the Company's credit quality, generally termed "adequate assurance" under the agreements, or require the Company to post additional collateral if there were a downgrade in the Company's credit rating. The collateral potentially required for contracts with adequate assurance clauses that are in net liability positions as of December 31, 2024 was \$589 million. The Company is also a party to certain

marginable agreements under which it has a net liability position, but the counterparty has not called for the collateral due, which was approximately \$54 million as of December 31, 2024. In the event of a downgrade in the Company's credit rating and if called for by the counterparty, \$10 million of additional collateral would be required for all contracts with credit rating contingent features as of December 31, 2024.

See Note 5, *Fair Value of Financial Instruments*, for discussion regarding concentration of credit risk.

Note 7 — Inventory

Inventory consisted of:

(In millions)	As of December 31,	
	2024	2023
Coal	\$ 194	\$ 178
Natural gas	126	189
Fuel oil	8	8
Finished goods	79	164
Spare parts	71	68
Total Inventory	<u>\$ 478</u>	<u>\$ 607</u>

Note 8 — Property, Plant and Equipment

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

(In millions)	As of December 31,		Depreciable Lives
	2024	2023	
Facilities and equipment	\$ 1,972	\$ 1,918	1-40 years
Land and improvements	255	256	
Software	582	471	5 years
Hardware and office equipment and furnishings	278	261	2-10 years
Construction in progress	442	152	
Total property, plant, and equipment	3,529	3,058	
Accumulated depreciation	(1,508)	(1,295)	
Net property, plant, and equipment	<u>\$ 2,021</u>	<u>\$ 1,763</u>	

Depreciation expense of property, plant and equipment recorded during the years ended December 31, 2024, 2023 and 2022 was \$271 million, \$257 million and \$291 million, respectively.

Note 9 — Leases

The Company leases generating facilities, land, office and equipment, railcars, fleet vehicles and storefront space at retail stores. Operating leases with an initial term greater than twelve months are recognized as right-of-use assets and lease liabilities in the consolidated balance sheets. The Company made an accounting policy election, as permitted by ASC 842, for all asset classes not to recognize right-of-use assets and lease liabilities in the consolidated balance sheets for its short-term leases, which are leases that have a lease term of twelve months or less. For the initial measurement of lease liabilities, the discount rate that the Company uses is either the rate implicit in the lease, if known, or its incremental borrowing rate, which is the rate of interest that the Company would have to pay to borrow, on a collateralized basis, over a similar term an amount equal to the payments for the lease. The Company recognizes lease expense for all operating leases on a straight-line basis over the lease term. In the future, should another systematic basis become more representative of the pattern in which the lessee expects to consume the remaining economic benefit of the right-of-use asset, the Company will use that basis for lease expense.

The Company considers a contract to be or to contain a lease when both of the following conditions apply: 1) an asset is either explicitly or implicitly identified in the contract and 2) the contract conveys to the Company the right to control the use of the identified asset for a period of time. The Company has the right to control the use of the identified asset when the Company has both the right to obtain substantially all the economic benefits from the use of the identified asset and the right to direct how and for what purpose the identified asset is used throughout the period of use.

Lease payments are typically fixed and payable on a monthly, quarterly, semi-annual or annual basis. Lease payments under certain agreements may escalate over the lease term either by a fixed percentage or a fixed dollar amount. Certain leases

may provide for variable lease payments in the form of payments based on unit availability, usage, a percentage of sales from the location under lease, or index-based (e.g., the U.S. Consumer Price Index) adjustments to lease payments. The Company has no leases which contain residual value guarantees provided by the Company as a lessee.

Lease Cost:

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Finance lease cost	\$ 9	\$ 8	\$ 4
Amortization of right-of-use assets	8	7	4
Interest on lease liabilities	1	1	—
Operating lease cost	89	93	85
Short-term lease cost	32	42	7
Variable lease cost	91	91	86
Sublease income	—	(2)	(2)
Total lease cost	\$ 221	\$ 232	\$ 180

Other information:

(In millions)	For the Year Ended December 31,		
	2024	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 190	\$ 195	\$ 183
Financing cash flows from finance leases	8	7	5
Right-of-use assets obtained in exchange for new finance lease liabilities	13	17	3
Right-of-use assets obtained in exchange for new operating lease liabilities	69	52	28

Lease Term and Discount Rate for leases:

	December 31, 2024		December 31, 2023	
Finance leases:				
Weighted average remaining lease term(in years)		2.7		2.9
Weighted average discount rate	6.26	%	4.87	%
Operating leases:				
Weighted average remaining lease term(in years)		5.4		3.6
Weighted average discount rate	6.23	%	6.00	%

As of December 31, 2024, annual payments based on the maturities of the Company's operating leases are expected to be as follows:

	In millions	
2025	\$	85
2026		40
2027		35
2028		27
2029		18
Thereafter		87
Total undiscounted lease payments	\$	292
Less: present value adjustment		(109)
Total discounted lease payments	\$	183

Note 10 — Asset Impairments

2024 Impairment Losses

During the fourth quarter of 2024, the Company completed its annual budget and analyzed the corresponding impact on estimated cash flows associated with its long-lived assets. The fair value of the assets was determined using an income approach by applying a discounted cash flow methodology to the long-term budget for each facility. The income approach utilized estimates of after-tax cash flows, which were Level 3 fair value measurements, and included key inputs such as forecasted power prices, fuel costs, operating and maintenance costs, plant investment capital expenditures and discount rates.

As a result of the evaluation performed, the Company recorded impairment losses of \$7 million and \$14 million related to its equity method investments in Gladstone and property plant and equipment and leases in the West/Services/Other segment, respectively. For further discussion of the Gladstone investment, see Note 16, *Investments Accounted for by the Equity Method and Variable Interest Entities*.

Other Impairments — The Company recorded impairment losses related to excess SO₂ allowances of \$7 million in the Texas segment and goodwill impairment losses of \$15 million in the West/Services/Other segment.

2023 Impairment Losses

During the fourth quarter of 2023, the Company completed its annual budget and analyzed the corresponding impact on estimated cash flows associated with its long-lived assets. The fair value of the assets was determined using an income approach by applying a discounted cash flow methodology to the long-term budget for each facility. The income approach utilized estimates of after-tax cash flows, which were Level 3 fair value measurements, and included key inputs such as forecasted power prices, fuel costs, operating and maintenance costs, plant investment capital expenditures and discount rates.

Gladstone — The Company recorded impairment losses of \$102 million on its equity method investment in Gladstone within the West/Services/Other segment as a result of changes in the long-term outlook of the Gladstone facility, prompted by evolving energy policy conditions in Australia and an assessment of the long-term operational landscape of the facility, which concluded with the annual budget process. For further discussion of the Gladstone investment, see Note 16, *Investments Accounted for by the Equity Method and Variable Interest Entities*.

Other Impairments — The Company additionally recorded impairment losses related to property plant and equipment and leases of \$2 million, \$4 million and \$20 million in the Texas, East and West/Services/Other segments, respectively.

2022 Impairment Losses

Astoria Redevelopment Impairment — During the third quarter of 2022, the Company entered into a purchase and sale agreement for the sale of the land and related assets at the Astoria generating site and the planned withdrawal and cancellation of its proposed Astoria redevelopment project. As a result, the Company impaired \$43 million of Astoria project spend in the East segment. For further discussion of the transaction, see Note 4, *Acquisitions and Dispositions*.

PJM Asset Impairments — During the second quarter of 2022, the results of the PJM Base Residual Auction for the 2023/2024 delivery year were released leading the Company to revise its long-term view of certain facilities and announce the planned retirement of the Joliet generating facility. The Company considered the near-term retirement date of Joliet and the decline in PJM capacity prices to be a trigger for impairment and performed impairment tests on the PJM generating assets and the goodwill associated with Midwest Generation. The Company measured the impairment losses on the PJM generating assets and Midwest Generation goodwill as the difference between the carrying amount and the fair value of the PJM generating assets and Midwest Generation reporting unit, respectively. Fair values were determined using an income approach in which the Company applied a discounted cash flow methodology to the long-term budgets for the plants and reporting unit. Significant inputs impacting the income approach include the Company's long-term view of capacity and fuel prices, projected generation, the physical and economic characteristics of each plant and the reporting unit as a whole, and the discount rate applied to the after-tax cash flow projections. Impairment losses of \$20 million and \$130 million were recorded in the East segment on the PJM generating assets and Midwest Generation goodwill, respectively.

Other Impairments — The Company additionally recorded impairment losses of \$13 million in the East segment.

Note 11 — Goodwill and Other Intangibles

Goodwill

The following table presents the changes in goodwill for the years ended December 31, 2024 and 2023 based on the Company's reportable segments:

(in millions)	Texas	East	West/Services/Other	Vivint Smart Home	Total
Balance as of January 1, 2023	\$ 710	\$ 723	\$ 217	\$ —	\$ 1,650
Goodwill resulted from the acquisition of Vivint	—	—	—	3,494	3,494
Asset sales	(67)	(2)	—	—	(69)
Foreign currency translation adjustments	—	—	4	—	4
Balance as of December 31, 2023	\$ 643	\$ 721	\$ 221	\$ 3,494	\$ 5,079
Impairment	—	—	(15)	—	(15)
Sale of Airtron	—	—	(43)	—	(43)
Foreign currency translation adjustments	—	—	(10)	—	(10)
Balance as of December 31, 2024	\$ 643	\$ 721	\$ 153	\$ 3,494	\$ 5,011

Intangible Assets

The Company's intangible assets as of December 31, 2024, primarily reflect intangible assets established with the acquisitions of various companies, including Vivint Smart Home, Direct Energy, other retail acquisitions and Texas Genco. Intangible assets are comprised of the following:

- *Emission Allowances* — These intangibles primarily consist of SO₂ emission allowances, including those established with the 2006 acquisition of Texas Genco, RGGI emission credits and California carbon allowances. These emission allowances are held-for-use and are amortized to cost of operations based on units of production.
- *Customer and supply contracts* — These intangibles include the fair value at the acquisition date of in-market and out-of-market customer and supply contracts from the acquisition of Direct Energy and are amortized to revenue and cost of operations, respectively, based upon the fair market value, as of the acquisition date, for each delivery month.
- *Customer relationships* — These intangibles represent the fair value at the acquisition date of acquired businesses' customer base from the acquisition of Vivint, Direct Energy and other acquisitions. Customer relationships are amortized to depreciation and amortization expense based on the expected discounted future net cash flows by year.
- *Marketing partnerships* — These intangibles represent the fair value at the acquisition date of existing agreements with marketing vendors and loyalty and affinity partners for customer acquisition. Marketing partnerships are amortized to depreciation and amortization expense based on the expected discounted future net cash flows by year.
- *Technology* — These intangibles represent the fair value at the acquisition date of developed technology for Vivint Smart Home integrated software and products. Technology is amortized to depreciation and amortization expense, ratably based on the expected discounted future net cash flows by year.
- *Trade names* — These intangibles are amortized to depreciation and amortization expense on a straight-line basis.
- *Other* — These intangibles primarily include renewable energy certificates. RECs are retired, as required, for the applicable compliance period. RECs are expensed to cost of operations based on NRG's customer usage. Other also included in-market nuclear fuel contracts established from the Texas Genco acquisition in 2006 which were amortized to cost of operations over expected volumes over the life of each contract, costs to extend the operating license for STP Units 1 and 2 and intellectual property related to Coal Zero, which was amortized to depreciation and amortization expense.

The following tables summarize the components of NRG's intangible assets:

(In millions)

Year Ended December 31, 2024	Emission Allowances	Customer and Supply Contracts	Customer Relationships	Marketing Partnerships	Technology	Trade Names	Other^(a)	Total
January 1, 2024	\$ 628	\$ 609	\$ 3,464	\$ 295	\$ 860	\$ 841	\$ 224	\$ 6,921
Purchases	22	—	—	—	—	—	497	519
Acquisition of businesses ^(b)	—	—	35	—	—	—	—	35
Usage/Sales/Retirements/Transfers	(19)	—	—	—	—	—	(461)	(480)
Write-off of fully amortized balances	—	—	(146)	—	—	(11)	—	(157)
Sale of Airtron ^(c)	—	—	(255)	—	—	(24)	—	(279)
Other	(6)	(3)	(5)	(1)	1	(5)	—	(19)
December 31, 2024	625	606	3,093	294	861	801	260	6,540
Less accumulated amortization	(538)	(399)	(1,555)	(193)	(457)	(443)	(47)	(3,632)
Net carrying amount	<u>\$ 87</u>	<u>\$ 207</u>	<u>\$ 1,538</u>	<u>\$ 101</u>	<u>\$ 404</u>	<u>\$ 358</u>	<u>\$ 213</u>	<u>\$ 2,908</u>

(a) RECs are not subject to amortization and had a carrying value of \$213 million

(b) The weighted average amortization period for total amortizable intangible assets is approximately 5 years

(c) Includes \$81 million of intangibles that were amortized

(In millions)

Year Ended December 31, 2023	Emission Allowances	Customer and Supply Contracts	Customer Relationships	Marketing Partnerships	Technology	Trade Names	Other^(a)	Total
January 1, 2023	\$ 624	\$ 635	\$ 1,730	\$ 284	\$ —	\$ 679	\$ 292	\$ 4,244
Purchases	10	—	—	—	—	—	465	475
Acquisition of businesses ^(b)	—	—	1,773	10	860	160	—	2,803
Usage/Sales/Retirements	—	—	—	—	—	—	(474)	(474)
Write-off of fully amortized balances	(1)	(28)	(43)	—	—	—	—	(72)
Sale of STP ^(c)	—	—	—	—	—	—	(59)	(59)
Other	(5)	2	4	1	—	2	—	4
December 31, 2023	628	609	3,464	295	860	841	224	6,921
Less accumulated amortization	(533)	(328)	(1,300)	(170)	(230)	(401)	(32)	(2,994)
Net carrying amount	<u>\$ 95</u>	<u>\$ 281</u>	<u>\$ 2,164</u>	<u>\$ 125</u>	<u>\$ 630</u>	<u>\$ 440</u>	<u>\$ 192</u>	<u>\$ 3,927</u>

(a) RECs are not subject to amortization and had a carrying value of \$177 million

(b) The weighted average amortization period for total amortizable intangible assets is approximately 10 years

(c) Includes \$47 million of intangibles that were amortized

The following table presents NRGs amortization of intangible assets for each of the past three years:

(In millions)	Years Ended December 31,		
	2024	2023	2022
Emission allowances	\$ 5	\$ 6	\$ 6
Customer and supply contracts	71	121	141
Customer relationships	476	556	269
Marketing partnerships	23	24	23
Technology	227	230	—
Trade names	59	60	47
Other ^(a)	15	4	4
Total amortization	\$ 876	\$ 1,001	\$ 490

(a) For the year ended December 31, 2024, 2023 and 2022, other intangibles amortized to depreciation and amortization expense were \$15 million, de minimis and \$4 million, respectively

The following table presents estimated amortization of NRGs intangible assets as of December 31, 2024 for each of the next five years:

(In millions)							
Year Ended December 31,	Emission Allowances	Customer and Supply Contracts	Customer Relationships	Marketing Partnerships	Technology	Trade Names	Total
2025	\$ 15	\$ 50	\$ 361	\$ 23	\$ 176	\$ 45	\$ 670
2026	16	52	289	23	130	37	547
2027	19	30	220	23	89	37	418
2028	20	12	177	15	9	37	270
2029	12	13	137	5	—	37	204

Note 12 — Long-term Debt and Finance Leases

Long-term debt and finance leases consisted of the following:

(In millions, except rates)	As of December 31,		Interest rate %
	2024	2023	
Recourse debt:			
Senior Notes, due 2027	\$ —	\$ 375	6.625
Senior Notes, due 2028	821	821	5.750
Senior Notes, due 2029	733	733	5.250
Senior Notes, due 2029	500	500	3.375
Senior Notes, due 2029	798	—	5.750
Senior Notes, due 2031	1,030	1,030	3.625
Senior Notes, due 2032	480	480	3.875
Senior Notes, due 2033	925	—	6.000
Senior Notes, due 2034	950	—	6.250
Convertible Senior Notes, due 2048 ^(a)	232	575	2.750
Senior Secured First Lien Notes, due 2024	—	600	3.750
Senior Secured First Lien Notes, due 2025	500	500	2.000
Senior Secured First Lien Notes, due 2027	900	900	2.450
Senior Secured First Lien Notes, due 2029	500	500	4.450
Senior Secured First Lien Notes, due 2033	740	740	7.000
Term Loan B, due 2031	1,317	—	SOFR + 1.750
Tax-exempt bonds	466	466	1.250 - 4.750
Subtotal recourse debt	10,892	8,220	
Non-recourse debt:			
Vivint Senior Notes, due 2029	—	800	5.750
Vivint Senior Secured Notes, due 2027	—	600	6.750
Vivint Senior Secured Term Loan, due 2028	—	1,320	SOFR + 3.510
Subtotal all Vivint non-recourse debt	—	2,720	
Subtotal long-term debt (including current maturities)	10,892	10,940	
Finance leases	14	19	various
Subtotal long-term debt and finance leases (including current maturities)	10,906	10,959	
Less current maturities	(996)	(620)	
Less debt issuance costs	(86)	(60)	
Discounts	(12)	(146)	
Total long-term debt and finance leases	\$ 9,812	\$ 10,133	

(a) As of the ex-dividend date of February 3, 2025, the Convertible Senior Notes were convertible at a price of \$40.78, which is equivalent to a conversion rate of approximately 24.5222 shares of common stock per \$1,000 principal amount of Convertible Senior Notes

Debt includes the following discounts:

(In millions)	As of December 31,	
	2024	2023
Senior Secured First Lien Notes, due 2025, 2027, 2029 and 2033	\$ (10)	\$ (10)
Term Loan B, due 2031	(2)	—
Vivint Senior Notes, due 2029	—	(103)
Vivint Senior Secured Notes, due 2027	—	(12)
Vivint Senior Secured Term Loan, due 2028	—	(21)
Total discounts	\$ (12)	\$ (146)

Consolidated Annual Maturities

As of December 31, 2024, annual payments based on the maturities of NRG's debt and finance leases are expected to be as follows:

	(In millions)
2025	\$ 996
2026	18
2027	916
2028	894
2029	2,544
Thereafter	5,538
Total	\$ 10,906

Recourse Debt

Senior Notes

Issuance of 2029 Senior Notes, 2033 Senior Notes and 2034 Senior Notes

On October 30, 2024, the Company issued \$1.9 billion in aggregate principal amount of senior unsecured notes, consisting of (i) \$925 million aggregate principal amount of 6.000% senior unsecured notes due 2033 (the "2033 Notes") and (ii) \$950 million aggregate principal amount of 6.250% senior unsecured notes due 2034 (the "2034 Notes" and, together with the 2033 Notes, the "Notes"). In addition, on October 30, 2024, the Company issued \$798 million aggregate principal amount of 5.750% senior unsecured notes due 2029 (the "New NRG 5.750% Senior Notes due 2029") in connection with the Company's previously announced offer to exchange. The Notes and the New NRG 5.750% Senior Notes due 2029 are senior unsecured obligations of the Company and are guaranteed by certain of its subsidiaries that guarantee indebtedness under the Senior Credit Facility. Interest on the New NRG 5.750% Senior Notes due 2029 is paid semi-annually beginning on January 15, 2025 until the maturity date of July 15, 2029. Interest on the 2033 Notes is paid semi-annually beginning on February 1, 2025 until the maturity date of February 1, 2033. Interest on the 2034 Notes is paid semi-annually beginning on May 1, 2025 until the maturity date of November 1, 2034.

On October 30, 2024, the Company used the net proceeds from the offering of the Notes, together with the net proceeds of its new incremental term loan B in an aggregate principal amount of \$450 million, to pay the cash tender price for any and all of APX Group, Inc.'s 6.750% Senior Secured Notes due 2027 and to repay APX Group, Inc.'s secured term loans in an outstanding aggregate principal amount of approximately \$1.3 billion under its senior secured credit agreement. In addition, on October 31, 2024, the Company used the net proceeds from the offering of the Notes and cash on hand to redeem all of its outstanding 6.625% Senior Notes due 2027, of which \$375 million aggregate principal amount was outstanding. Any remaining net proceeds from the offering was used to pay the transaction fees, expenses and premiums, to refinance outstanding debt and for general corporate purposes.

Senior Note Redemptions

During the year ended December 31, 2024, the Company redeemed \$375 million in aggregate principal amount of its 6.625% Senior Notes due 2027, at a redemption price equal to 100.000% for \$382 million, which included the payment of \$7 million of accrued interest, using the net proceeds from the offering of the Notes and cash on hand. In connection with the redemption, the Company wrote-off \$1 million of previously deferred financing costs and other fees, which was recorded to loss on debt extinguishment.

3.750% Senior Secured First Lien Note due 2024 Repayment

On June 17, 2024, the Company repaid \$600 million in aggregate principal amount of its 3.750% Senior Secured First Lien Notes due 2024.

Senior Credit Facility

Term Loan B Incurrence

On April 16, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Eighth Amendment to the Credit Agreement in order to (i) establish the Existing Term Loan B Facility with borrowings of \$875 million in aggregate principal amount and the Existing Term Loans and (ii) make certain other modifications to the Credit Agreement as set forth therein. The proceeds from the Existing Term Loans were used to repay a portion of the Company's Convertible Senior Notes, all of the Company's 3.750% senior secured first lien notes due 2024 and for general corporate purposes.

On October 30, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Eleventh Amendment to the Credit Agreement in order to include the Incremental Term Loan B Facility in an aggregate principal amount of \$450 million and the Incremental Term Loans, which Incremental Term Loan B Facility is fungible for U.S. federal tax purposes with the Existing Term Loan B Facility. The proceeds from the Incremental Term Loans, together with the proceeds of the Notes, were used to repay all loans and other amounts outstanding under APX's senior secured credit agreement and to pay the cash tender price for any and all of APX Group, Inc.'s 6.750% Senior Secured Notes due 2027. The terms of the Incremental Term Loan B Facility (including pricing) are identical to those applicable to the Existing Term Loan B Facility, and the Incremental Term Loans constitute the same class of term loans as the Company's Existing Term Loans.

On November 26, 2024, the Company, as borrower, entered into the Twelfth Amendment to the Credit Agreement in order to (i) reprice both the Existing Term Loan B Facility and the Incremental Term Loan B Facility and (ii) make certain other modifications to the Credit Agreement as set forth therein.

Following the effectiveness of the Twelfth Amendment, at the Company's election, the Existing Term Loans and the Incremental Term Loans bear interest at a rate per annum equal to either (1) a fluctuating rate equal to the highest of (A) the rate published by the Federal Reserve Bank of New York in effect on such day, plus 0.50%, (B) the rate of interest per annum publicly announced from time to time by The Wall Street Journal as the "Prime Rate" in the United States, and (C) a rate of one-month Term SOFR (as defined in the Credit Agreement) (after giving effect to any floor applicable to Term SOFR) plus 1.00%, in each case, plus a margin of 0.75% or (2) Term SOFR (as defined in the Credit Agreement) (which shall not be less than 0.00%) for a one-, three- or six-month interest period (or such other period as agreed to by the Agent and the lenders, as selected by the Company), plus a margin of 1.75%.

The Existing Term Loan B Facility and the Incremental Term Loan B Facility are guaranteed by each of the Company's subsidiaries that guarantee the Company's Revolving Credit Facility and are secured on a first lien basis by substantially all of the Company's and such subsidiaries' assets, in each case, subject to certain customary exceptions and limitations set forth in the Credit Agreement.

The Existing Term Loans and the Incremental Term Loans have a final maturity date of April 16, 2031 and amortize at a rate of 1% per annum in equal quarterly installments (subject to any adjustments to such amortization payments to ensure that such Incremental Term Loans are fungible for U.S. federal tax purposes with the Existing Term Loans). If an event of default occurs under the Existing Term Loan B Facility or the Incremental Term Loan B Facility, the entire principal amount outstanding thereunder, together with all accrued unpaid interest and other amounts owing in respect thereof, may be declared immediately due and payable, subject, in certain instances, to the expiration of applicable cure periods. The Existing Term Loan B Facility and the Incremental Term Loan B Facility also provide for customary asset sale mandatory prepayments, reporting covenants and negative covenants governing dividends, investments, indebtedness, and other matters that are customary for similar term loan B facilities.

On December 20, 2024, the Company, as borrower, entered into the Thirteenth Amendment to the Credit Agreement to (i) add APX Group, Inc. as an additional borrower of the loans under the Credit Agreement on a joint and several basis with the Company and (ii) make certain other modifications to the Credit Agreement as set forth therein.

Revolving Credit Facility

On April 22, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Ninth Amendment to extend the maturity date of a portion of the revolving commitments thereunder to February 14, 2028.

On October 30, 2024, the Company, as borrower, and certain of its subsidiaries, as guarantors, entered into the Tenth Amendment to (i) extend the maturity date of its revolving credit facility to October 30, 2029 and (ii) make certain other amendments to the Credit Agreement as set forth therein.

As of December 31, 2024, there were no outstanding borrowings and there were \$477 million in letters of credit issued under the Revolving Credit Facility.

2048 Convertible Senior Notes

Accounting for Convertible Senior Notes — Beginning in 2022, the Company no longer records the conversion feature of its convertible senior notes in equity. Instead, the Company combined the previously separated equity component with the liability component, which together is now classified as debt, thereby eliminating the subsequent amortization of the debt discount as interest expense.

Modification to Convertible Senior Notes — In 2022, the Company irrevocably elected to eliminate the right to settle conversions only in shares of the Company's common stock, such that any conversion after such date, the Company will pay cash per \$1,000 principal amount and will settle in cash or a combination of cash and the Company's common stock for the remainder, if any, of the Company's conversion obligation in excess of the aggregate principal amount.

Convertible Senior Notes Features — As of December 31, 2024, the Convertible Senior Notes are convertible, under certain circumstances, into cash or a combination of cash and the Company's common stock at a price of \$40.94 per common share, which is the equivalent to a conversion rate of approximately 24.4241 shares of common stock per \$1,000 principal amount of Convertible Senior Notes. As of December 31, 2023, the Convertible Senior Notes were convertible at a price of \$41.83 per common share, which is equivalent to a conversion rate of approximately 23.9079 shares of common stock per \$1,000 principal amount of Convertible Senior Notes. The settlement method is at the Company's election. The net carrying amounts of the Convertible Senior Notes as of December 31, 2024 and December 31, 2023 were \$231 million and \$572 million, respectively. The Convertible Senior Notes mature on June 1, 2048, unless earlier repurchased, redeemed or converted in accordance with their terms.

The Convertible Senior Notes are convertible at the option of the holders only upon the occurrence of certain events and during certain periods, including, among others, during any calendar quarter (and only during such calendar quarter) if the last reported sales price per share of the Company's common stock exceeded 130% of the conversion price for each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter (the "Common Stock Sale Price Condition"). As of January 1, 2025, the Company's Convertible Senior Notes are convertible during the quarterly period ending March 31, 2025 due to the satisfaction of the Common Stock Sale Price Condition. In addition, the Convertible Senior Notes are also convertible during specified periods as follows:

- from December 1, 2024 until the close of business on the second scheduled trading day immediately before June 1, 2025; and
- from December 1, 2047 until the close of business on the second scheduled trading day immediately before the maturity date.

All conversions with a conversion date that occurs within the specific periods above will be settled after such period pursuant to the terms of the Convertible Senior Notes indenture.

The following table details the interest expense recorded in connection with the Convertible Senior Notes:

(In millions, except percentages)	For the years ended December 31,		
	2024	2023	2022
Contractual interest expense	\$ 9	\$ 16	\$ 16
Amortization of discount and deferred finance costs	1	2	1
Total	\$ 10	\$ 18	\$ 17
Effective Interest Rate	3.08 %	3.18 %	3.01 %

Convertible Senior Notes Repurchases

During the year ended December 31, 2024, the Company completed repurchases of a portion of the Convertible Senior Notes using cash on hand and a portion of the proceeds from the Term Loans, as detailed in the table below. For the year ended December 31, 2024, a \$260 million loss on debt extinguishment was recorded in connection with the repurchases below.

(In millions, except percentages)			
Settlement Period	Principal Repurchased	Cash Paid ^(a)	Average Repurchase Percentage
March 2024	\$ 92	\$ 151	162.356%
April 2024	251	452	179.454%
Total Repurchases	\$ 343	\$ 603	

(a) Includes accrued interest of \$1 million and \$2 million for the March and April repurchases, respectively

Capped Call Options

During the second quarter of 2024, the Company entered into privately negotiated capped call transactions with certain counterparties (the “Capped Calls”) to effectively lock in a conversion premium of \$257 million on the remaining \$232 million in aggregate principal amount of the Convertible Senior Notes. The option price of \$257 million was incurred when the Company entered into the Capped Calls, which will be payable upon the earlier of settlement and expiration of the applicable Capped Calls. For further discussion see Note 15, *Capital Structure*.

Senior Notes Early Redemption

As of December 31, 2024, the Company had the following outstanding issuances of senior notes with an early redemption feature, or Senior Notes:

- i. 5.750% senior notes, issued December 7, 2017 and due January 15, 2028, or the 2028 Senior Notes;
- ii. 5.250% senior notes, issued May 24, 2019 and due June 15, 2029, or the 5.250% 2029 Senior Notes;
- iii. 3.375% senior notes, issued December 2, 2020 and due February 15, 2029, or the 3.375% 2029 Senior Notes;
- iv. 5.750% senior notes, issued October 30, 2024 and due July 15, 2029, or the 5.750% 2029 Senior Notes;
- v. 3.625% senior notes, issued December 2, 2020 and due February 15, 2031, or the 2031 Senior Notes;
- vi. 3.875% senior notes, issued August 23, 2021 and due February 15, 2032, or the 2032 Senior Notes;
- vii. 6.000% senior notes, issued October 30, 2024 and due February 1, 2033, or the 2033 Senior Notes; and
- viii. 6.250% senior notes, issued October 30, 2024 and due November 1, 2034, or the 2034 Senior Notes.

The indentures and the forms of notes provide, among other things, that the Senior Notes will be senior unsecured obligations of the Company. The indentures also provide for customary events of default, which include, among others: nonpayment of principal or interest; breach of other covenants in the indentures; defaults in failure to pay certain other indebtedness; the rendering of judgments to pay certain amounts of money against the Company and certain of its subsidiaries; the failure of certain guarantees to be enforceable; and certain events of bankruptcy or insolvency. Generally, if an event of default occurs and continues, the trustee or the holders of at least 25% or 30% (depending on the series of Senior Notes) in principal amount of the then-outstanding series of Senior Notes may declare all of the Senior Notes of such series to be due and payable immediately. The terms of the indentures contain certain restrictions on incurring secured debt and consolidating, merging or transferring all or substantially all of the Company’s assets. Interest is payable semi-annually on the Senior Notes until their maturity dates.

2028 Senior Notes

The Company may redeem some or all of the 2028 Senior Notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

Redemption Period	Redemption Percentage
January 15, 2025 to January 14, 2026	100.958 %
January 15, 2026 and thereafter	100.000 %

5.250% 2029 Senior Notes

The Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

Redemption Period	Redemption Percentage
June 15, 2024 to June 14, 2025	102.625 %
June 15, 2025 to June 14, 2026	101.750 %
June 15, 2026 to June 14, 2027	100.875 %
June 15, 2027 and thereafter	100.000 %

3.375% 2029 Senior Notes

The Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

<u>Redemption Period</u>	<u>Redemption Percentage</u>
February 15, 2025 to February 14, 2026	100.844 %
February 15, 2026 and thereafter	100.000 %

5.750% 2029 Senior Notes

The Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

<u>Redemption Period</u>	<u>Redemption Percentage</u>
July 15, 2024 to July 14, 2025	102.875 %
July 15, 2025 to July 14, 2026	101.438 %
July 15, 2026 and thereafter	100.000 %

2031 Senior Notes

At any time prior to February 15, 2026, the Company may redeem all or a part of the 2031 Senior Notes, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus accrued and unpaid interest to the redemption date, plus a premium. The premium is the greater of: (i) 1% of the principal amount of the note; or (ii) the excess of the present value of 101.813% of the note, plus interest payments due on the note through February 15, 2026 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 0.50% over the principal amount of the note. In addition, on or after February 15, 2026, the Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

<u>Redemption Period</u>	<u>Redemption Percentage</u>
February 15, 2026 to February 14, 2027	101.813 %
February 15, 2027 to February 14, 2028	101.208 %
February 15, 2028 to February 14, 2029	100.604 %
February 15, 2029 and thereafter	100.000 %

2032 Senior Notes

At any time prior to February 15, 2027, the Company may redeem all or a part of the 2032 Senior Notes, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus accrued and unpaid interest to the redemption date, plus a premium. The premium is the greater of: (i) 1% of the principal amount of the notes; or (ii) the excess of (A) the present value of (1) the redemption price of the note at February 15, 2027 (such redemption price being set forth in the table appearing below in the column “Redemption Percentage (If Sustainability Performance Target has not been satisfied and/or confirmed by External Verifier)” unless the Sustainability Performance Target has been satisfied in respect of the year ended December 31, 2025 and the Company has provided confirmation thereof to the trustee together with a related confirmation by the External Verifier by the date that is at least 15 days prior to August 15, 2026 in which case the redemption price shall be as set forth in the column “Redemption Percentage (If Sustainability Performance Target has been satisfied and confirmed by External Verifier)” plus (2) interest payments due on the note through February 15, 2027 (excluding accrued but unpaid interest to the redemption date) computed using a discount rate equal to the Treasury Rate as of such redemption date plus 0.50%, over (B) the principal amount of the note. In addition, on or after February 15, 2027, the Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table during the twelve-month period beginning on February 15 of the years indicated below, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

Year	Redemption Percentage (If Sustainability Performance Target has been satisfied and confirmed by External Verifier)	Redemption Percentage (If Sustainability Performance Target has not been satisfied and/or confirmed by External Verifier)
2027	101.938 %	102.188 %
2028	101.292 %	101.458 %
2029	100.646 %	100.729 %
2030 and thereafter	100.000 %	100.000 %

2033 Senior Notes

At any time prior to November 1, 2027, the Company may redeem all or a part of the 2033 Senior Notes, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus accrued and unpaid interest to the redemption date, plus a premium. The premium is the greater of: (i) 1% of the principal amount of the note; or (ii) the excess of the present value of 103.000% of the note, plus interest payments due on the note through November 1, 2027 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 0.50% over the principal amount of the note. In addition, on or after November 1, 2027, the Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

Redemption Period	Redemption Percentage
November 1, 2027 to October 31, 2028	103.000 %
November 1, 2028 to October 31, 2029	101.500 %
November 1, 2029 and thereafter	100.000 %

2034 Senior Notes

At any time prior to November 1, 2029, the Company may redeem all or a part of the 2034 Senior Notes, at a redemption price equal to 100% of the principal amount of the notes redeemed, plus accrued and unpaid interest to the redemption date, plus a premium. The premium is the greater of: (i) 1% of the principal amount of the note; or (ii) the excess of the present value of 103.125% of the note, plus interest payments due on the note through November 1, 2029 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the Treasury Rate as of such redemption date plus 0.50% over the principal amount of the note. In addition, on or after November 1, 2029, the Company may redeem some or all of the notes at redemption prices expressed as percentages of principal amount as set forth in the following table, plus accrued and unpaid interest on the notes redeemed up to the redemption date:

Redemption Period	Redemption Percentage
November 1, 2029 to October 31, 2030	103.125 %
November 1, 2030 to October 31, 2031	101.563 %
November 1, 2031 and thereafter	100.000 %

Receivables Securitization Facilities

In 2020, NRG Receivables LLC, a bankruptcy remote, special purpose, indirect wholly owned subsidiary (“NRG Receivables”), entered into the Receivables Facility, subject to adjustments on a seasonal basis, with issuers of asset-backed commercial paper and commercial banks (the “Lenders”). The assets of NRG Receivables are first available to satisfy the claims of the Lenders before making payments on the subordinated note and equity issued by NRG Receivables. The assets of NRG Receivables are not available to the Company and its subsidiaries or creditors unless and until distributed by NRG Receivables. Under the Receivables Facility, certain indirect subsidiaries of the Company sell their accounts receivables to NRG Receivables, subject to certain terms and conditions. In turn, NRG Receivables grants a security interest in the purchased receivables to the Lenders as collateral for cash borrowings and issuances of letters of credit. Pursuant to the Performance Guaranty, the Company has guaranteed, for the benefit of NRG Receivables and the Lenders, the payment and performance by each indirect subsidiary of its respective obligations under the Receivables Facility. The accounts receivables remain on the Company’s consolidated balance sheet and any amounts funded by the Lenders to NRG Receivables will be reflected as short-term borrowings. Cash flows from the Receivables Facility are reflected as financing activities in the Company’s consolidated statements of cash flows. The Company continues to service the accounts receivables sold in exchange for a servicing fee.

In 2020, the Company entered into the Repurchase Facility related to the Receivables Facility. Under the Repurchase Facility, the Company could borrow up to \$150 million, collateralized by a subordinated note issued by NRG Receivables to NRG Retail LLC in favor of the originating entities representing a portion of the balance of receivables sold to NRG Receivables under the Receivables Facility.

On June 21, 2024, NRG Receivables LLC (“NRG Receivables”), an indirect wholly-owned subsidiary of the Company, amended its existing Receivables Facility to, among other things, (i) extend the scheduled termination date to June 20, 2025, (ii) increase the aggregate commitments from \$1.4 billion to \$2.3 billion (adjusted seasonally) and (iii) add a new originator. The weighted average interest rate related to usage under the Receivables Facility as of December 31, 2024 was 0.776%. As of December 31, 2024, there were no outstanding borrowings and there were \$1.4 billion in letters of credit issued under the Receivables Facility.

Also on June 21, 2024, Direct Energy Services, LLC (in its capacity as additional originator, the “Additional Originator”) entered into a Joinder Agreement (the “Joinder Agreement”) to join as Additional Originator to the Receivables Sale Agreement, dated as of September 22, 2020, among Direct Energy, LP, Direct Energy Business, LLC, Green Mountain Energy Company, NRG Business Marketing, LLC, Reliant Energy Northeast LLC, Reliant Energy Retail Services, LLC, Stream SPE, Ltd., US Retailers LLC and XOOM Energy Texas, LLC, as originators, NRG Retail, as the servicer, and NRG Receivables (the “Receivables Sale Agreement”). Pursuant to the Joinder Agreement, the Additional Originator agrees to be bound by the terms of the Receivables Sale Agreement, will sell to NRG Receivables substantially all of its receivables for the sale of electricity, natural gas and/or related services and certain related rights (collectively, the “Receivables”) and in connection therewith have transferred to NRG Receivables the deposit accounts into which the proceeds of such Receivables are paid.

Concurrently with the amendments to the Receivables Facility, the Company and the originators thereunder terminated the existing uncommitted Repurchase Facility.

Tax Exempt Bonds

(In millions, except rates)	As of December 31,		Interest Rate %
	2024	2023	
NRG Indian River Power 2020, tax exempt bonds, due 2040	\$ 57	\$ 57	1.250
NRG Indian River Power 2020, tax exempt bonds, due 2045	190	190	1.250
NRG Dunkirk 2020, tax exempt bonds, due 2042	59	59	4.250
City of Texas City, tax exempt bonds, due 2045	33	33	4.125
Fort Bend County, tax exempt bonds, due 2038	54	54	4.750
Fort Bend County, tax exempt bonds, due 2042	73	73	4.750
Total	\$ 466	\$ 466	

Bilateral Letter of Credit Facilities

The bilateral letter of credit facilities allows for the issuance of up to \$850 million of letters of credit. These facilities are uncommitted. As of December 31, 2024, \$526 million was issued under these facilities.

Pre-Capitalized Trust Securities Facility

On August 29, 2023, the Company entered into a facility agreement with Alexander Funding Trust II, a newly-formed Delaware statutory trust (the “Trust”), in connection with the sale by the Trust of \$500 million pre-capitalized trust securities redeemable July 31, 2028 (the “P-Caps”).

The P-Caps are to be redeemed by the Trust on July 31, 2028 or earlier upon an early redemption of the P-Caps Secured Notes. Following any distribution of P-Caps Secured Notes to the holders of the P-Caps, the Company may similarly redeem such P-Caps Secured Notes, in whole or in part, at the redemption price described in the P-Caps Indenture, plus accrued but unpaid interest to, but excluding, the date of redemption. Any P-Caps Secured Notes outstanding and held by the Trust as a result of the exercise of the Issuance Right that remain outstanding will also mature on July 31, 2028.

In connection with the issuance of the P-Caps, on August 29, 2023, the Company entered into a letter of credit facility agreement with Deutsche Bank Trust Company Americas, as collateral agent and administrative agent, and certain financial institutions for the issuance of letters of credit in an aggregate amount not to exceed \$485 million. The facility is committed. As of December 31, 2024, \$480 million was issued under this facility.

Non-recourse Debt

The following are descriptions of certain indebtedness of NRG’s subsidiaries. As of December 31, 2024, such non-recourse debt is no longer outstanding.

Vivint Secured Notes Tender Offer

On October 30, 2024, in connection with APX Group, Inc.’s previously announced offer to purchase for cash (the “Tender Offer”) any and all of APX Group, Inc.’s outstanding 6.750% senior secured notes due 2027 (the “Vivint 6.750% Senior Secured Notes due 2027”), APX Group, Inc. purchased \$589 million in aggregate principal amount of the Vivint 6.750% Senior Secured Notes due 2027 that had been validly tendered for \$600 million, which included the payment of \$8 million of accrued interest. On November 8, 2024, APX Group, Inc. redeemed the remaining \$11 million in aggregate principal amount of the Vivint 6.750% Senior Secured Notes due 2027 that remained outstanding following the Tender Offer. The price for the Vivint 6.750% Senior Secured Notes due 2027 was 100.411%. In connection with the redemptions, a \$13 million loss on debt extinguishment was recorded, which included the write-off of previously deferred financing costs and other fees of \$1 million.

Vivint Unsecured Notes Exchange Offer

In connection with the Company’s offer to exchange (the “Exchange Offer”) for any and all outstanding 5.750% Senior Notes due 2029 (the “Vivint 5.750% Senior Notes due 2029”) issued by APX Group, Inc. for the New NRG 5.750% Senior Notes due 2029 and cash, NRG accepted tenders with respect to \$798 million aggregate principal amount of the Vivint 5.750% Senior Notes due 2029, that were tendered on or prior to the early tender date. In connection with the redemptions, a \$90 million loss on debt extinguishment was recorded.

On October 30, 2024, the Company issued the New NRG 5.750% Senior Notes due 2029 in an aggregate principal amount of \$798 million in connection with the Exchange Offer. On November 14, 2024, APX Group, Inc. redeemed the \$2 million of the Vivint 5.750% Senior Notes due 2029 that remained outstanding following the Exchange Offer. The redemption price was equal to 102.875% of the aggregate principal amount.

Vivint Term Loan

On April 10, 2024, the Company’s wholly-owned indirect subsidiary, Vivint, entered into the Second Amendment to the Vivint Credit Agreement with, among others, the Vivint Agent, and certain financial institutions, as lenders, which amended the Vivint Credit Agreement in order to (i) reprice its term loan B facility (the term loans thereunder, the “Vivint Term Loans”) and (ii) make certain other modifications to the Vivint Credit Agreement as set forth therein.

At Vivint’s election, the Vivint Term Loans bear interest at a rate per annum equal to either (1) a fluctuating rate equal to the highest of (A) the rate published by the Federal Reserve Bank of New York in effect on such day, plus 0.50%, (B) the rate of interest per annum publicly announced from time to time by The Wall Street Journal as the “Prime Rate” in the United States, and (C) a rate of one-month Term SOFR (as defined in the Vivint Credit Agreement), (after giving effect to any floor applicable to Term SOFR) plus 1.00%, in each case, plus a margin of 1.75%, or (2) Term SOFR (as defined in the Vivint Credit Agreement) (which Term SOFR shall not be less than 0.50%) for a one-, three- or six-month interest period (or such other period as agreed to by the Vivint Agent and the lenders, as selected by Vivint), plus a margin of 2.75%.

On October 30, 2024, the Company repaid in full the outstanding Vivint Term Loans of approximately \$1.3 billion and terminated the revolving credit facility under the Vivint Credit Agreement. In connection with the repayment, an \$18 million loss on debt extinguishment was recorded, which included the write-off of previously deferred financing costs and other fees of \$2 million.

Note 13 — Asset Retirement Obligations

The Company's AROs are primarily related to the environmental obligations for mine reclamation, ash disposal, site closures, fuel storage facilities and future dismantlement of equipment on leased property. In addition, the Company has also identified conditional AROs for asbestos removal and disposal, which are specific to certain power generation operations.

The following table presents the balance of ARO obligations as of December 31, 2024 and 2023, along with the activity related to the Company's ARO obligations for the year ended December 31, 2024:

(In millions)	Total ^(a)
Balance as of December 31, 2023	\$ 407
Revisions in estimates for current obligations	6
Additions	6
Spending for current obligations	(35)
Accretion	25
Balance as of December 31, 2024	\$ 409

(a) Total accretion expense related to asset retirement obligations included in the consolidated statement of cash flows includes accretion and revisions in estimates for asset retirement liabilities on non-operating plants

Note 14 — Benefit Plans and Other Postretirement Benefits

NRG sponsors and operates defined benefit pension and other postretirement plans. NRG pension benefits are available to eligible non-union and union employees through various defined benefit pension plans. These benefits are based on pay, service history and age at retirement. Most pension benefits are provided through tax-qualified plans. NRG also provides postretirement health and welfare benefits for certain groups of employees. Cost sharing provisions vary by the terms of any applicable collective bargaining agreements.

NRG maintains three separate qualified pension plans, the NRG Pension Plan for Bargained Employees, the NRG Pension Plan and the Pension Plan for Employees of Direct Energy Marketing Limited ("DEML"). Participation in the NRG Pension Plan for Bargained Employees depends upon whether an employee is covered by a bargaining agreement. The NRG Pension Plan was frozen for non-union employees on December 31, 2018. In 2024, the Company commenced the termination process for the defined benefit component of the Pension Plan for Employees of DEML and expects to complete the transaction in 2025.

NRG expects to contribute \$16 million to the Company's pension plans in 2025.

NRG Defined Benefit Plans

The annual net periodic benefit cost/(credit) related to NRG's pension and other postretirement benefit plans include the following components:

(In millions)	Year Ended December 31,		
	Pension Benefits		
	2024	2023	2022
Service cost benefits earned	\$ 3	\$ 5	\$ 7
Interest cost on benefit obligation	48	50	41
Expected return on plan assets	(47)	(39)	(47)
Amortization of unrecognized net loss	2	6	3
Curtailment and special termination benefits (income)/expense	(6)	(1)	14
Net periodic benefit cost	\$ —	\$ 21	\$ 18

(In millions)	Year Ended December 31,		
	Other Postretirement Benefits		
	2024	2023	2022
Interest cost on benefit obligation	\$ 3	\$ 4	\$ 2
Amortization of unrecognized prior service cost	(3)	(8)	(8)
Amortization of unrecognized net loss	(1)	1	2
Net periodic benefit credit	\$ (1)	\$ (3)	\$ (4)

A comparison of the pension benefit obligation, other postretirement benefit obligations and related plan assets for NRGs plans on a combined basis is as follows:

(In millions)	As of December 31,					
	Pension Benefits		Other Postretirement Benefits			
	2024	2023	2024	2023		
Benefit obligation at January 1	\$ 1,023	\$ 1,036	\$ 75	\$ 84		
Service cost	3	5	—	—		
Interest cost	48	50	3	4		
Actuarial loss/(gain)	(35)	22	(1)	(5)		
Employee and retiree contributions	—	—	3	4		
Annuity purchase settlement	(50)	—	—	—		
Curtailment and special termination benefit loss	—	(2)	—	(1)		
Benefit payments	(83)	(89)	(10)	(11)		
Foreign exchange translation	(5)	1	—	—		
Benefit obligation at December 31	901	1,023	70	75		
Fair value of plan assets at January 1	851	844	—	—		
Actual return on plan assets	16	93	—	—		
Employee and retiree contributions	—	—	3	4		
Employer contributions	38	2	7	7		
Annuity purchase settlement	(50)	—	—	—		
Benefit payments	(83)	(89)	(10)	(11)		
Foreign exchange translation	(5)	1	—	—		
Fair value of plan assets at December 31	767	851	—	—		
Funded status at December 31 — excess of obligation over assets	\$ (134)	\$ (172)	\$ (70)	\$ (75)		

During the year ended December 31, 2024, the actuarial gain of \$35 million on pension benefits was primarily driven by increasing discount rates.

During the year ended December 31, 2023, the actuarial loss of \$22 million on pension benefits was primarily driven by decreasing discount rates.

Amounts recognized in NRGs balance sheets were as follows:

(In millions)	As of December 31,			
	Pension Benefits		Other Postretirement Benefits	
	2024	2023	2024	2023
Other current liabilities	\$ —	\$ —	\$ 5	\$ 5
Other non-current liabilities	134	172	65	70

Amounts recognized in NRGs accumulated OCI that have not yet been recognized as components of net periodic benefit cost were as follows:

(In millions)	As of December 31,			
	Pension Benefits		Other Postretirement Benefits	
	2024	2023	2024	2023
Net loss/(gain)	\$ 73	\$ 73	\$ (14)	\$ (14)
Prior service cost/(credit)	—	—	(1)	(4)
Total accumulated OCI	\$ 73	\$ 73	\$ (15)	\$ (18)

Other changes in plan assets and benefit obligations recognized in OCI were as follows:

(In millions)	Year Ended December 31,					
	Pension Benefits			Other Postretirement Benefits		
	2024		2023	2024		2023
Net actuarial (gain)/loss	\$ (4)	\$	(31)	\$ (1)	\$	(5)
Amortization of net actuarial loss	(2)		(6)	1		(1)
Settlement (gain)/loss	6		—	—		—
Amortization of prior service cost	—		—	3		8
Effect of settlement/curtailment	—		(1)	—		(1)
Total recognized in OCI	\$ —	\$	(38)	\$ 3	\$	1
Net periodic benefit cost/(credit)	—		21	(1)		(3)
Net recognized in net periodic pension (credit)/cost and OCI	\$ —	\$	(17)	\$ 2	\$	(2)

The following table presents the balances of significant components of NRG's pension plan:

(In millions)	As of December 31,	
	Pension Benefits	
	2024	2023
Projected benefit obligation	\$ 901	\$ 1,023
Accumulated benefit obligation	895	1,015
Fair value of plan assets	767	851

NRG's market-related value of its plan assets is the fair value of the assets. The fair values of the Company's pension plan assets by asset category and their level within the fair value hierarchy are as follows:

(In millions)	Fair Value Measurements as of December 31, 2024			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Total	
Common/collective trust investment — U.S. equity	\$ —	\$ 142	\$	142
Common/collective trust investment — non-U.S. equity	—	105		105
Common/collective trust investment — non-core assets	—	50		50
Common/collective trust investment — fixed income	—	199		199
Short-term investment fund	25	—		25
Subtotal fair value	\$ 25	\$ 496	\$	521
Measured at net asset value practical expedient:				
Common/collective trust investment — non-U.S. equity				29
Common/collective trust investment — fixed income				177
Common/collective trust investment — non-core assets				12
Partnerships/joint ventures				28
Total fair value			\$	767

Fair Value Measurements as of December 31, 2023			
(In millions)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Total
Common/collective trust investment — U.S. equity	\$ —	\$ 156	\$ 156
Common/collective trust investment — non-U.S. equity	—	58	58
Common/collective trust investment — non-core assets	—	81	81
Common/collective trust investment — fixed income	—	188	188
Short-term investment fund	19	—	19
Subtotal fair value	\$ 19	\$ 483	\$ 502
Measured at net asset value practical expedient:			
Common/collective trust investment — non-U.S. equity			32
Common/collective trust investment — fixed income			243
Common/collective trust investment — non-core assets			47
Partnerships/joint ventures			27
Total fair value			\$ 851

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 in its entirety. The fair value of the common/collective trust investments is valued at fair value which is equal to the sum of the market value of all of the fund's underlying investments. Certain common/collective trust investments have readily determinable fair value as they publish daily net asset value, or NAV, per share and are categorized as Level 2. Certain other common/collective trust investments and partnerships/joint ventures use NAV per share, or its equivalent, as a practical expedient for valuation, and thus have been removed from the fair value hierarchy table.

The following table presents the significant assumptions used to calculate NRGs benefit obligations:

Weighted-Average Assumptions	As of December 31,			
	Pension Benefits		Other Postretirement Benefits	
	2024	2023	2024	2023
Discount rate	5.63 %	4.97 %	5.55 %	4.96 %
Interest crediting rate	5.38 %	5.67 %	4.54 %	4.66 %
Rate of compensation increase	3.00 %	3.06 %	—	—
Health care trend rate	—	—	8.3% grading to 4.5% in 2034	7.7% grading to 4.5% in 2033

The following table presents the significant assumptions used to calculate NRGs benefit expense:

Weighted-Average Assumptions	As of December 31,					
	Pension Benefits			Other Postretirement Benefits		
	2024	2023	2022	2024	2023	2022
Discount rate	4.99 %	5.18 %	2.89%/4.71%/5.41%	4.96 %	5.19 %	2.82 %
Interest crediting rate	5.67 %	5.21 %	3.07 %	4.66 %	4.00 %	1.94 %
Expected return on plan assets	6.65 %	5.55 %	4.99 %	—	—	—
Rate of compensation increase	3.00 %	3.06 %	3.06 %	—	—	—
Health care trend rate	—	—	—	7.4% grading to 4.5% in 2033	7.2% grading to 4.5% in 2028	6.9% grading to 4.4% in 2028

NRG uses December 31 of each respective year as the measurement date for the Company's pension and other postretirement benefit plans. The Company sets the discount rate assumptions on an annual basis for each of NRGs defined benefit retirement plans as of December 31. The discount rate assumptions represent the current rate at which the associated liabilities could be effectively settled at December 31. The Company utilizes the Aon AA Above Median, or AA-AM, yield curve and the AON Canada yield curve to select the appropriate discount rate assumption for its retirement plans. The AA-AM yield curve is a hypothetical AA yield curve represented by a series of annualized individual spot discount rates from 6 months to 99 years. Under the AA-AM yield curve, each bond issue used to build this yield curve must be non-callable, and have an average rating of AA when averaging available Moody's Investor Services, Standard & Poor's and Fitch ratings. The AON Canada yield curve is based on high quality corporate bonds. Under the AON Canada yield curve, expected plan cash flows were discounted using the yield curve, and then a single rate is determined which produces an equivalent present value.

NRG employs a total return investment approach, whereby a mix of equities and fixed income investments are used to maximize the long-term return of plan assets for a prudent level of risk. Risk tolerance is established through careful consideration of plan liabilities, plan funded status, and corporate financial condition. The Investment Committee reviews the asset mix periodically and as the plan assets increase in future years, the Investment Committee may examine other asset classes such as real estate or private equity. NRG employs a building block approach to determining the long-term rate of return assumption for plan assets, with proper consideration given to diversification and rebalancing. Historical markets are studied and long-term historical relationships between equities and fixed income are preserved, consistent with the widely accepted capital market principle that assets with higher volatility generate a greater return over the long run. Current factors such as inflation and interest rates are evaluated before long-term capital market assumptions are determined. Peer data and historical returns are reviewed to check for reasonableness and appropriateness.

The target allocations of NRGs pension plan assets were as follows for the year ended December 31, 2024:

U.S. equity	20 %
Non-U.S. equity	13 %
Non-core assets	17 %
Fixed income	50 %

Plan assets are currently invested in a diversified blend of equity and fixed-income investments. Furthermore, equity investments are diversified across U.S., non-U.S., global, and emerging market equities, as well as among growth, value, small and large capitalization stocks.

Investment risk and performance are monitored on an ongoing basis through quarterly portfolio reviews of each asset fund class to a related performance benchmark, if applicable, and annual pension liability measurements. Performance benchmarks are composed of the following indices:

Asset Class	Index
U.S. equities	Dow Jones U.S. Total Stock Market Index
Non-U.S. equities	MSCI All Country World Index
Non-core assets ^(a)	Various (per underlying asset class)
Fixed income securities	Barclays Short, Intermediate and Long Credits/Barclays Strips 20+ Index and FTSE Canada Universe Bond Index

(a) Non-Core Assets are defined as diversifying asset classes approved by the Investment Committee that are intended to enhance returns and/or reduce volatility of the U.S. and non-U.S. equities. Asset classes considered Non-Core include, but may not be limited to: Emerging Market Equity, Emerging Market Debt, Non-US Developed Market Small Cap, High Yield Fixed Income, Real Estate, Bank Loans, Global Infrastructure and other Alternatives

NRGs expected future benefit payments for each of the next five years, and in the aggregate for the five years thereafter, are as follows:

(In millions)	Pension		Other Postretirement Benefit		
	Benefit Payments		Benefit Payments		Medicare Prescription Drug Reimbursements
2025	\$	93	\$	5	\$ —
2026		77		5	—
2027		75		5	—
2028		73		5	—
2029		71		5	—
2030-2034		336		28	2

Defined Contribution Plans

NRGs employees are also eligible to participate in defined contribution 401(k) plans.

The Company's costs related to these plans were as follows:

(In millions)	Year Ended December 31,					
	2024		2023		2022	
Cost recognized for defined contribution plans	\$	62	\$	61	\$	37

The Company's costs, which are primarily related to employer matching of a portion of employee contributions to defined contribution plans, increased during 2023 primarily due to an increase in retirement saving plan match and the Vivint acquisition.

Note 15 — Capital Structure

For the period from December 31, 2021 to December 31, 2024, the Company had 10,000,000 shares of preferred stock authorized and 500,000,000 shares of common stock authorized. The following table reflects the changes in NRG's preferred and common shares issued and outstanding for each period presented:

	Preferred Shares		Common Shares	
	Issued and Outstanding	Issued	Treasury	Outstanding
Balance as of December 31, 2021	—	423,547,174	(179,793,275)	243,753,899
Shares issued under ESPP	—	—	142,825	142,825
Shares issued under LTIPs	—	349,827	—	349,827
Share repurchases	—	—	(14,685,521)	(14,685,521)
Balance as of December 31, 2022	—	423,897,001	(194,335,971)	229,561,030
Issuance of Series A Preferred Stock	650,000	—	—	—
Shares issued under ESPP	—	—	191,249	191,249
Shares issued under LTIPs	—	1,109,611	—	1,109,611
Share repurchases	—	—	(22,730,940)	(22,730,940)
Retirement of treasury stock	—	(157,676,142)	157,676,142	—
Balance as of December 31, 2023	650,000	267,330,470	(59,199,520)	208,130,950
Shares issued under ESPP	—	—	242,070	242,070
Shares issued under LTIPs	—	1,959,134	—	1,959,134
Share repurchases	—	—	(11,725,563)	(11,725,563)
Partial settlement of Capped Call Options	—	—	(2,588)	(2,588)
Retirement of treasury stock	—	(64,225,546)	64,225,546	—
Balance as of December 31, 2024	650,000	205,064,058	(6,460,055)	198,604,003
Shares issued under LTIPs	—	540,996	—	540,996
Share repurchases	—	—	(1,076,423)	(1,076,423)
Retirement of treasury stock	—	(1,028,193)	1,028,193	—
Balance as of January 31, 2025	650,000	204,576,861	(6,508,285)	198,068,576

Common Stock

As of December 31, 2024, NRG had 25,400,076 shares of common stock reserved for the maximum number of shares potentially issuable based on the conversion and redemption features of the long-term incentive plans.

Common Stock Dividends

The Company declared and paid \$0.4075, \$0.3775 and \$0.350 quarterly dividend per common share, or \$1.63, \$1.51 and \$1.40 per share on an annualized basis for 2024, 2023 and 2022 respectively.

In 2022, 2023 and 2024, NRG increased the annual dividend on its common stock to \$1.40, \$1.51 and \$1.63 per share, respectively, representing an 8% increase each year. Beginning in the first quarter of 2025, NRG will increase the annual common stock dividend by 8% to \$1.76 per share. The long-term capital allocation policy targets an annual common stock dividend growth rate of 7%-9% per share in subsequent years.

The Company's common stock dividends are subject to available capital, market conditions, and compliance with associated laws, regulations and other contractual obligations.

On January 22, 2025, NRG declared a quarterly dividend on the Company's common stock of \$0.44 per share, or \$1.76 per share on an annualized basis, payable on February 18, 2025, to stockholders of record as of February 3, 2025.

Employee Stock Purchase Plan

The Company offers participation in the ESPP which allows eligible employees to elect to withhold between 1% and 10% of their eligible compensation to purchase shares of NRG common stock at the lesser of 90% of its market value on the offering date or 90% of the fair market value on the exercise date. An offering date occurs each April 1 and October 1. An exercise date occurs each September 30 and March 31. As of December 31, 2024, there remained 6,460,055 shares of treasury stock reserved for issuance under the ESPP.

Share Repurchases

During the year ended December 31, 2022, the Company completed \$595 million of share repurchases at an average price per share of \$40.48. In June 2023, NRG revised its long-term capital allocation policy to target allocating approximately 80% of cash available for allocation, after debt reduction, to be returned to shareholders. As part of the revised capital allocation framework, the Company announced an increase to its share repurchase authorization to \$2.7 billion, to be executed through 2025. In October 2024, the Board of Directors authorized an additional \$1.0 billion for share repurchases as part of the existing share repurchase authorization. As of January 31, 2025, \$1.5 billion is remaining under the \$3.7 billion authorization. The following table summarizes the share repurchases made under the \$3.7 billion authorization through January 31, 2025:

	Total number of shares purchased	Average price paid per share	Amounts paid for shares purchased (in millions)
2023 Repurchases:			
Open market repurchases	5,054,798	\$ 39.56	\$ 200
Repurchases made under the accelerated share repurchase agreements	17,676,142	(a)	950
Total Share Repurchases during 2023	22,730,940		1,150 (b)
2024 Repurchases:			
Repurchases made under the accelerated share repurchase agreements	1,163,230	(a)	—
Open market repurchases	10,562,333	87.57	925
Total Share Repurchases during 2024	11,725,563		925 (c)
Repurchases made subsequent to December 31, 2024 thru January 31, 2025	1,076,423	101.07	109
Total Share Repurchases made under the \$3.7 billion authorization	35,532,926	\$ 61.46	\$ 2,184

- (a) Under the November 6, 2023 ASR, the Company received a total of 18,839,375 shares for an average price per share of \$50.43, excluding the impact of the excise tax incurred. See discussion below for further information of the ASR agreements
- (b) Excludes \$10 million of excise tax accrued in 2023 which was paid in 2024
- (c) Excludes \$9 million accrued for estimated excise tax owed as of December 31, 2024

On November 6, 2023, the Company executed Accelerated Share Repurchase agreements to repurchase a total of \$950 million of NRGs outstanding common stock based on volume-weighted average prices. The Company received 17,676,142 shares in the fourth quarter of 2023, which were recorded in treasury stock at fair value based on the volume-weighted average closing prices of \$833 million, with the remaining \$117 million recorded in additional paid in capital, representing the value of the forward contracts to purchase additional shares. During the first quarter of 2024, the Company received an additional 1,163,230 shares pursuant to the ASR agreements. Upon receipt of the final shares, the Company transferred the \$117 million from additional paid-in-capital to treasury stock.

Retirement of Treasury Stock

During the years ended December 31, 2024 and 2023, the Company retired shares of treasury stock as detailed below. These retired shares are now included in NRGs pool of authorized but unissued shares. The Company's accounting policy upon the formal retirement of treasury stock is to deduct its par value from common stock and to reflect any excess of cost over par value as a deduction from additional paid-in capital.

	Total number of treasury shares retired	Average price per share	Carrying value of treasury shares retired (in millions)
Shares retired during the year ended December 31, 2023	157,676,142	\$ 31.77	\$ 5,009
Shares retired during the year ended December 31, 2024	64,225,546	\$ 41.07	\$ 2,638

Capped Call Options

During the second quarter of 2024, the Company entered into privately negotiated capped call transactions with certain counterparties (the "Capped Calls"). The Capped Calls each have a strike price of \$40.94 per share, subject to certain adjustments, which correspond to the conversion price of the Convertible Senior Notes as of December 31, 2024. The Capped Calls have a cap price of \$249.00 per share, subject to certain adjustments, and effectively lock in a conversion premium of \$257 million on the remaining \$232 million balance of the Convertible Senior Notes. The options will expire on June 1, 2025 if not exercised. The Capped Calls are separate transactions and not part of the terms of the Convertible Senior Notes. As these transactions meet certain accounting criteria, the Capped Calls are recorded in stockholders' equity. The option price of \$257 million incurred in connection with the Capped Calls, of which \$253 million was recorded as a reduction to additional paid-in capital and a \$4 million loss was recorded to other income, net to account for the change in the value of the Capped

Calls during the calculation period which began on May 31, 2024 and concluded on June 28, 2024. The option price will be payable upon the earlier of settlement and expiration of the applicable Capped Calls.

Preferred Stock

Series A Preferred Stock

On March 9, 2023 ("Series A Issuance Date"), the Company issued 650,000 shares of 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock. The net proceeds of \$635 million, net of issuance costs, were used to partially fund the Vivint Smart Home acquisition.

The Series A Preferred Stock is not convertible into or exchangeable for any other securities or property and has limited voting rights. The Series A Preferred Stock may be redeemed, in whole or in part, on one or more occasions, at the option of the Company at any time after March 15, 2028 ("Series A First Reset Date") and in certain other circumstances prior to the Series A First Reset Date. The Series A Preferred Stock has a liquidation preference of \$1,000 per share, plus accumulated but unpaid dividends.

Series A Preferred Stock Dividends

The annual dividend rate on each share of Series A Preferred Stock is 10.25% from the Series A Issuance Date to, but excluding the Series A First Reset Date. On and after the Series A First Reset Date, the dividend rate on each share of Series A Preferred Stock shall equal the five-year U.S. Treasury rate as of the most recent reset dividend determination date (subject to a floor of 1.00%), plus a spread of 5.92% per annum. Cumulative cash dividends on the Series A Preferred Stock are payable semiannually, in arrears, on each March 15 and September 15, when, as and if declared by the Board of Directors.

In March and September 2024, the Company declared and paid semi-annual dividends of \$51.25 per share on its outstanding Series A Preferred Stock, each totaling \$33 million. In September 2023, the Company declared and paid a semi-annual dividend of \$52.96 per share, totaling \$34 million.

Note 16 — Investments Accounted for by the Equity Method and Variable Interest Entities

Entities that are not Consolidated

NRG accounts for the Company's significant investments using the equity method of accounting. NRGs carrying value of equity investments can be impacted by a number of elements including impairments and movements in foreign currency exchange rates.

The following table summarizes NRGs equity method investments as of December 31, 2024:

(In millions, except percentages)

Name:	Economic Interest	Investment Balance
Gladstone ^(a)	37.5 %	\$ 34
Midway-Sunset Cogeneration Company	50.0 %	11
Total equity investments in affiliates		\$ 45

(a) As of December 31, 2024, the carrying value of NRGs equity method investment was \$39 million lower than the underlying net assets of the investee. The basis difference is being amortized into net income over the remaining estimated useful lives of the underlying net assets. For the year ended December 31, 2024, the Company recorded \$7 million of impairment losses on Gladstone. Refer to Note 10, *Asset Impairments*

The following table summarizes the undistributed earnings from NRGs equity method investments as of December 31, 2024:

(In millions)	As of December 31,	
	2024	2023
Undistributed earnings	\$ 5	\$ —

Other Equity Investments

Gladstone — Through a joint venture, NRG owns a 37.5% interest in Gladstone, a 1,613 MW coal-fueled power generation facility in Queensland, Australia. The power generation facility is managed by the joint venture participants and the facility is operated by NRG. Operating expenses incurred in connection with the operation of the facility are funded by each of the participants in proportion to their ownership interests. Coal is sourced from local mines in Queensland. NRG and the joint venture participants receive their respective share of revenues directly from the off takers in proportion to the ownership interests in the joint venture. Power generated by the facility is primarily sold to an adjacent aluminum smelter, with excess power sold to the Queensland Government-owned utility under long-term supply contracts. NRGs investment in Gladstone was \$34 million as of December 31, 2024.

Variable Interest Entities that are Consolidated

The Company has a controlling financial interest that has been identified as a VIE under ASC 810 in NRG Receivables LLC, which has entered into financing transactions related to the Receivables Facility as further described in Note 12, *Long-term Debt and Finance Leases*.

The summarized financial information for the Company's consolidated VIE consisted of the following:

(In millions)	December 31, 2024	December 31, 2023
Accounts receivable and Other current assets	\$ 2,402	\$ 1,541
Current liabilities	155	153
Net assets	\$ 2,247	\$ 1,388

Note 17 — Income/(Loss) Per Share

Basic income/(loss) per common share is computed by dividing net income/(loss) less cumulative dividends attributable to preferred stock by the weighted average number of common shares outstanding. Shares issued and treasury shares repurchased during the year are weighted for the portion of the year that they were outstanding. Diluted income/(loss) per share is computed in a manner consistent with that of basic income/(loss) per share, while giving effect to all potentially dilutive common shares that were outstanding during the period when there is net income.

Dilutive effect for equity compensation and other equity instruments — The relative performance stock units and non-vested restricted stock units are not considered outstanding for purposes of computing basic income/(loss) per share. However, these instruments are included in the denominator for purposes of computing diluted income/(loss) per share under the treasury stock method for periods when there is net income. The Convertible Senior Notes are convertible, under certain circumstances, into cash or combination of cash and Company's common stock. The Company is including the potential share settlements, if any, in the denominator for purposes of computing diluted income/(loss) per share under the if converted method for periods when there is net income. The potential shares settlements are calculated as the excess of the Company's conversion obligation over the aggregate principal amount (which will be settled in cash), divided by the average share price for the period.

The reconciliation of NRG's basic and diluted income/(loss) per share is shown in the following table:

(In millions, except per share amounts)	Year Ended December 31,		
	2024	2023	2022
Basic income/(loss) per share:			
Net income/(loss)	\$ 1,125	\$ (202)	\$ 1,221
Less: Cumulative dividends attributable to Series A Preferred Stock	67	54	—
Income/(Loss) Available to Common Stockholders	\$ 1,058	\$ (256)	\$ 1,221
Weighted average number of common shares outstanding - basic	206	228	236
Income/(Loss) per weighted average common share — basic	\$ 5.14	\$ (1.12)	\$ 5.17
Diluted income/(loss) per share:			
Net income/(loss)	\$ 1,125	\$ (202)	\$ 1,221
Less: Cumulative dividends attributable to Series A Preferred Stock	67	54	—
Income/(Loss) Available to Common Stockholders	\$ 1,058	\$ (256)	\$ 1,221
Weighted average number of common shares outstanding - basic	206	228	236
Incremental shares attributable to the issuance of equity compensation (treasury stock method)	3	—	—
Incremental shares attributable to the potential share settlement of Convertible Senior Notes (if converted method)	3	—	—
Weighted average number of common shares outstanding - diluted	212	228	236
Income/(Loss) per weighted average common share — diluted	\$ 4.99	\$ (1.12)	\$ 5.17

As of December 31, 2024 and 2022, the Company had an insignificant number of outstanding equity instruments that were anti-dilutive and were not included in the computation of the Company's diluted income per share. As of December 31, 2023, the Company had 6 million of outstanding equity instruments that were anti-dilutive and were not included in the computation of the Company's diluted loss per share.

Note 18 — Segment Reporting

The Company's segment structure reflects how management makes financial decisions and allocates resources. The Company manages its operations based on the combined results of the retail, wholesale and generation businesses with a geographical focus except for Vivint Smart Home operations which are reported within the Vivint Smart Home segment. Corporate represents the corporate business activities, and corporate shared services, to support the Company's operating segments. Beginning in the fourth quarter of 2024, Corporate now includes interest expense related to its consolidated debt financing activities and income tax expense related to its consolidated U.S. federal, foreign and state income taxes conforming to the way the Company internally manages and monitors the business. Prior periods amounts have been recast for comparative purposes to reflect this change, which had no impact on the Company's consolidated financial position, results of operations, and cash flows. The accounting policies of the segments are the same as those applied in the consolidated financial statements as disclosed in Note 2, *Summary of Significant Accounting Policies*.

NRG's chief operating decision maker ("CODM"), its chief executive officer, uses more than one measure to evaluate the performance of its segments and allocate resources, including net income/(loss) and various non-GAAP financial measures such as adjusted earnings before interest, taxes, depreciation and amortization, or Adjusted EBITDA. Net income/(loss) and Adjusted EBITDA are used to review business performance and allocate resources as it provides a clearer view of segment profitability by focusing on operational performance. Additionally, operating expenses' impact on each operating segment results are analyzed. On a monthly basis, Adjusted EBITDA is compared against the budget, latest forecast, and prior period.

The Company had no customer that comprised more than 10% of the Company's consolidated revenues during the years ended December 31, 2024, 2023 and 2022.

Intersegment sales are accounted for at market.

For the Year Ended December 31, 2024							
(In millions)	Texas	East	West/Services/Other	Vivint Smart Home	Corporate ^(a)	Eliminations	Total
Revenue^(a)	\$ 10,653	\$ 11,707	\$ 3,886	\$ 1,932	\$ —	\$ (48)	\$ 28,130
Operating Expenses	9,785	9,746	3,874	1,037	81	(48)	24,475
Depreciation and amortization	323	158	114	767	41	—	1,403
Impairment losses	7	—	29	—	—	—	36
Total operating cost and expenses	10,115	9,904	4,017	1,804	122	(48)	25,914
(Loss)/gain on sale of assets	(4)	3	209	—	—	—	208
Operating income/(loss)	534	1,806	78	128	(122)	—	2,424
Equity in earnings of unconsolidated affiliates	—	—	20	—	—	—	20
Impairment losses on investments	—	—	(7)	—	—	—	(7)
Other income, net	—	(1)	6	(15)	54	—	44
Loss on debt extinguishment	—	—	—	—	(382)	—	(382)
Interest expense	—	—	—	—	(651)	—	(651)
Income/(loss) before income taxes	534	1,805	97	113	(1,101)	—	1,448
Income tax expense	—	—	—	—	323	—	323
Net income/(loss)	\$ 534	\$ 1,805	\$ 97	\$ 113	\$ (1,424)	\$ —	\$ 1,125
Balance sheet							
Equity investments in affiliates	\$ —	\$ —	\$ 45	\$ —	\$ —	\$ —	\$ 45
Capital expenditures	369	3	16	23	61	—	472
Goodwill	643	721	153	3,494	—	—	5,011
Total assets	\$ 6,925	\$ 8,021	\$ 2,254	\$ 6,624	\$ 15,543	\$ (15,345)	\$ 24,022

(a) Inter-segment sales and inter-segment net derivative gains and losses included in revenues

\$	22	\$	—	\$	18	\$	8	\$	—	\$	—	\$	48
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For the Year Ended December 31, 2023

(In millions)	Texas	East	West/Services/Other	Vivint Smart Home ^(a)	Corporate ^(b)	Eliminations	Total
Revenue^(b)	\$ 10,476	\$ 12,547	\$ 4,281	\$ 1,549	\$ —	\$ (30)	\$ 28,823
Operating Expenses	8,353	14,361	5,021	858	133	(30)	28,696
Depreciation and amortization	348	167	99	645	36	—	1,295
Impairment losses	2	4	20	—	—	—	26
Total operating cost and expenses	8,703	14,532	5,140	1,503	169	(30)	30,017
Gain on sale of assets	1,319	259	—	—	—	—	1,578
Operating income/(loss)	3,092	(1,726)	(859)	46	(169)	—	384
Equity in earnings of unconsolidated affiliates	—	—	16	—	—	—	16
Impairment losses on investments	—	—	(102)	—	—	—	(102)
Other income, net	2	(1)	1	(15)	60	—	47
Gain on debt extinguishment	—	—	—	—	109	—	109
Interest expense	—	—	—	—	(667)	—	(667)
Income/(loss) before income taxes	3,094	(1,727)	(944)	31	(667)	—	(213)
Income tax benefit	—	—	—	—	(11)	—	(11)
Net income/(loss)	\$ 3,094	\$ (1,727)	\$ (944)	\$ 31	\$ (656)	\$ —	\$ (202)

Balance sheet

Equity investments in affiliates	\$ —	\$ —	\$ 42	\$ —	\$ —	\$ —	\$ 42
Capital expenditures	495	5	27	18	53	—	598
Goodwill	643	721	221	3,494	—	—	5,079
Total assets ^(c)	\$ 8,236	\$ 13,712	\$ 3,612	\$ 6,619	\$ 20,357	\$ (26,498)	\$ 26,038

(a) Includes results of operations following the acquisition date of March 10, 2023

(b) Inter-segment sales and inter-segment net derivative gains and losses included in revenues

\$ 5 \$ 9 \$ 16 \$ — \$ — \$ — \$ 30

(c) Tax related balances have been recast to Corporate for comparative purposes

(In millions)	For the Year Ended December 31, 2022					
	Texas	East	West/Services/Other	Corporate ^(a)	Eliminations	Total
Revenue ^(a)	\$ 10,057	\$ 16,763	\$ 4,706	\$ —	\$ 17	\$ 31,543
Operating Expenses	8,444	15,998	4,106	86	17	28,651
Depreciation and amortization	361	241	87	31	—	720
Impairment losses	—	206	—	—	—	206
Total operating cost and expenses	8,805	16,445	4,193	117	17	29,577
Gain/(loss) on sale of assets	10	—	45	(3)	—	52
Operating income	1,262	318	558	(120)	—	2,018
Equity in (losses)/earnings of unconsolidated affiliates	(2)	—	8	—	—	6
Other income, net	4	1	1	50	—	56
Interest expense	—	—	—	(417)	—	(417)
Income/(loss) before income taxes	1,264	319	567	(487)	—	1,663
Income tax expense	—	—	—	442	—	442
Net income/(loss)	\$ 1,264	\$ 319	\$ 567	\$ (929)	\$ —	\$ 1,221

(a) Inter-segment sales and inter-segment net derivative gains and losses included in revenues

\$ 4 \$ (26) \$ 5 \$ — \$ — \$ (17)

Note 19 — Income Taxes

The income tax provision consisted of the following amounts:

(In millions, except effective income tax rate)	Year Ended December 31,		
	2024	2023	2022
Current			
U.S. Federal	\$ 55	\$ 26	\$ 3
State	82	84	65
Foreign	5	(12)	3
Total — current	142	98	71
Deferred			
U.S. Federal	333	50	258
State	(134)	(61)	59
Foreign	(18)	(98)	54
Total — deferred	181	(109)	371
Total income tax expense/(benefit)	\$ 323	\$ (11)	\$ 442
Effective income tax rate	22.3 %	5.2 %	26.6 %

The IRA enacted on August 16, 2022, introduced new provisions including a 15% corporate alternative minimum tax and a 1% excise tax on net share repurchases with both taxes effective beginning in fiscal year 2023 for NRG. On September 12, 2024, Treasury and the IRS released proposed regulations that provide guidance on the application of the CAMT. The proposed regulations allow the exclusion of unrealized mark-to-market gains and losses, related to qualified hedge transactions, from adjusted financial statement income. The Company will continue to evaluate the applicable corporation status and the impact of the CAMT based on the proposed guidance. As of December 31, 2024, NRG as an applicable corporation is subject to the CAMT, and has reflected the impact in its current and deferred taxes. There is no impact on the Company's provision for income taxes from the CAMT as of December 31, 2024.

The following represented the domestic and foreign components of income/(loss) before income taxes:

(In millions)	Year Ended December 31,		
	2024	2023	2022
U.S.	\$ 1,485	\$ 261	\$ 1,436
Foreign	(37)	(474)	227
Total	<u>\$ 1,448</u>	<u>\$ (213)</u>	<u>\$ 1,663</u>

Reconciliations of the U.S. federal statutory tax rate to NRGs effective tax rate were as follows:

(In millions, except effective income tax rate)	Year Ended December 31,		
	2024	2023	2022
Income/(Loss) before income taxes	\$ 1,448	\$ (213)	\$ 1,663
Tax at federal statutory tax rate	304	(45)	349
State taxes	92	(22)	69
Foreign rate differential	1	(10)	7
Changes in state valuation allowances	(110)	42	(3)
Nondeductible loss on Convertible Senior Notes repurchases	56	—	—
Permanent differences	23	31	17
Stock compensation	(19)	—	—
Recognition of uncertain tax benefits	1	12	8
Deferred impact of state tax rate changes	(24)	3	14
Foreign tax refunds	—	(17)	—
Return to provision adjustments	(1)	(5)	—
Carbon capture tax credits	—	—	(19)
Income tax expense/(benefit)	<u>\$ 323</u>	<u>\$ (11)</u>	<u>\$ 442</u>
Effective income tax rate	22.3 %	5.2 %	26.6 %

For the year ended December 31, 2024, NRGs effective income tax rate was higher than the federal statutory tax rate of 21% primarily due to permanent differences and state tax expense partially offset by tax benefits from the revaluation of state deferred tax assets, and decrease of certain state valuation allowances.

For the year ended December 31, 2023, NRGs effective income tax rate was lower than the federal statutory tax rate of 21% primarily due to permanent differences and changes in state valuation allowances.

For the year ended December 31, 2022, NRGs effective income tax rate was higher than the federal statutory tax rate of 21% primarily due to state tax expense partially offset by the recognition of carbon capture tax credits.

The temporary differences, which gave rise to the Company's deferred tax assets and liabilities consisted of the following:

(In millions)	As of December 31,	
	2024	2023
Deferred tax assets:		
U.S. Federal net operating loss carryforwards	\$ 1,477	\$ 1,762
State net operating loss carryforwards	341	367
Foreign net operating loss carryforwards	106	110
Deferred revenues	335	347
Difference between book and tax basis of property	322	353
Federal and state tax credit carryforwards	269	317
Deferred compensation, accrued vacation and other reserves	174	141
Interest disallowance carryforward per § 163(j) of the Tax Act	77	132
Pension and other postretirement benefits	46	48
Allowance for credit losses	37	35
Equity compensation	30	24
Federal benefit on state uncertain tax positions	13	13
Inventory obsolescence	13	11
U.S. capital loss	1	1
Other	46	33
Total deferred tax assets	3,287	3,694
Deferred tax liabilities:		
Intangibles amortization (excluding goodwill)	486	726
Derivatives	193	156
Capitalized contract costs	249	131
Equity method investments	88	93
Goodwill	56	40
Debt discount amortization	—	26
Emissions allowances	16	18
Total deferred tax liabilities	1,088	1,190
Total deferred tax assets less deferred tax liabilities	2,199	2,504
Valuation allowance	(144)	(275)
Total net deferred tax assets, net of valuation allowance	\$ 2,055	\$ 2,229

The following table summarizes NRG's net deferred tax position as presented in the consolidated balance sheets:

(In millions)	As of December 31,	
	2024	2023
Deferred tax asset	\$ 2,067	\$ 2,251
Deferred tax liability	(12)	(22)
Net deferred tax asset	\$ 2,055	\$ 2,229

The primary drivers for the decrease in the net deferred tax asset from \$2.2 billion as of December 31, 2023 to \$2.1 billion as of December 31, 2024 is due to utilization of net operating losses, partially offset by the decrease of certain state valuation allowances.

Deferred tax assets and valuation allowance

Net deferred tax balance — As of December 31, 2024 and 2023, NRG recorded a net deferred tax asset, excluding valuation allowance, of \$2.2 billion and \$2.5 billion, respectively. The Company believes certain state net operating losses may not be realizable under the more-likely-than-not measurement and as such, a valuation allowance was recorded as of December 31, 2024 as discussed below.

NOL carryforwards — As of December 31, 2024, the Company had tax-effected cumulative U.S. NOLs consisting of carryforwards for federal and state income tax purposes of \$1.5 billion and \$341 million, respectively. In addition, NRG has tax-effected cumulative foreign NOL carryforwards of \$106 million. The majority of NRGs NOL carryforwards have no expiration date.

Valuation allowance — As of December 31, 2024, the Company's tax-effected valuation allowance was \$144 million, consisting of state NOL carryforwards and foreign NOL carryforwards. The valuation allowance was recorded based on the assessment of cumulative and forecasted pre-tax book earnings and the future reversal of existing taxable temporary differences.

Taxes Receivable and Payable

As of December 31, 2024, NRG recorded a current federal payable of \$1 million, a current net state receivable of \$1 million and a current net foreign receivable of \$8 million.

Uncertain tax benefits

NRG has identified uncertain tax benefits with after-tax value of \$57 million and \$73 million as of December 31, 2024 and 2023, for which NRG has recorded a non-current tax liability of \$62 million and \$76 million, respectively. The Company recognizes interest and penalties related to uncertain tax benefits in income tax expense. The Company recognized \$2 million of interest expense for the year ended December 31, 2024, and \$1 million for the years ended December 31, 2023 and 2022. As of December 31, 2024 and 2023, NRG had cumulative interest and penalties related to these uncertain tax benefits of \$5 million and \$3 million, respectively.

Tax jurisdictions — NRG is subject to examination by taxing authorities for income tax returns filed in the U.S. federal jurisdiction and various state and foreign jurisdictions including operations located in Australia and Canada.

The Company is no longer subject to U.S. federal income tax examinations for years prior to 2021. With few exceptions, state and Canadian income tax examinations are no longer open for years before 2015.

The following table summarizes uncertain tax benefits activity:

(In millions)	As of December 31,	
	2024	2023
Balance as of January 1	\$ 73	\$ 22
Increase due to current year positions	12	28
Increase due to acquired balance from Vivint Smart Home	—	23
Settlements, payments and statute closure	(28)	—
Uncertain tax benefits as of December 31	<u>\$ 57</u>	<u>\$ 73</u>

Note 20 — Stock-Based Compensation

The Company's stock-based compensation consists of awards granted under the NRG LTIP and following the Acquisition in March 2023, the Vivint LTIP.

NRG Energy, Inc. Long-Term Incentive Plan

As of December 31, 2024 and 2023, a total of 25,000,000 shares of NRG common stock were authorized for issuance under the NRG LTIP. There were 7,188,824 and 7,717,139 shares of common stock remaining available for grants under the NRG LTIP as of December 31, 2024 and 2023, respectively. The NRG LTIP is subject to adjustments in the event of reorganization, recapitalization, stock split, reverse stock split, stock dividend, and a combination of shares, merger or similar change in NRGs structure or outstanding shares of common stock. As of December 31, 2024, the outstanding awards under the NRG LTIP include restricted stock units, deferred stock units and relative performance stock units.

Restricted Stock Units

As of December 31, 2024, RSUs granted under the NRG LTIP typically have three-year graded vesting schedules beginning on the grant date. Fair value of the RSUs granted during 2024 and 2023 is derived from the closing price of NRG common stock on the grant date. The following table summarizes the Company's non-vested RSU awards and changes during the year:

	Units	Weighted Average Grant Date Fair Value per Unit
Non-vested at December 31, 2023	1,210,840	\$ 37.88
Granted	413,872	51.89
Forfeited	(49,082)	39.43
Vested	(525,470)	38.38
Non-vested at December 31, 2024	1,050,160	42.95

The total fair value of RSUs vested during the years ended December 31, 2024, 2023 and 2022 was \$47 million, \$20 million and \$10 million, respectively. The weighted average grant date fair value of RSUs granted during the years ended December 31, 2024, 2023 and 2022 was \$51.89, \$35.71 and \$41.26, respectively.

Deferred Stock Units

DSUs represent the right of a participant to be paid one share of NRG common stock at the end of a deferral period established under the terms of the award. DSUs granted under the NRG LTIP are fully vested at the date of issuance. Fair value of the DSUs, which is based on the closing price of NRG common stock on the date of grant, is recorded as compensation expense in the period of grant.

The following table summarizes the Company's outstanding DSU awards and changes during the year:

	Units	Weighted Average Grant Date Fair Value per Unit
Outstanding at December 31, 2023	443,287	\$ 29.07
Granted	46,617	76.31
Converted to Common Stock	(112,784)	30.73
Outstanding at December 31, 2024	377,120	33.91

The aggregate intrinsic values for DSUs outstanding as of December 31, 2024, 2023 and 2022 were approximately \$34 million, \$23 million and \$13 million, respectively. The aggregate intrinsic values for DSUs converted to common stock for the years ended December 31, 2024, 2023 and 2022 were \$10 million, \$3 million and \$1 million, respectively. The weighted average grant date fair value of DSUs granted during the years ended December 31, 2024, 2023 and 2022 was \$76.31, \$34.40 and \$45.49, respectively.

Relative Performance Stock Units

RPSUs entitle the recipient to stock upon vesting. The amount of the award is subject to the Company's achievement of certain performance measures over the vesting period. RPSUs are restricted grants where the quantity of shares increases and decreases alongside the Company's Total Shareholder Return ("TSR"), relative to the TSR of the Company's current proxy peer group and the total returns of select indexes, or Peer Group. The peer group consists of the companies that comprise the Standard & Poor's 500 Index on the first day of the performance period. Each RPSU represents the potential to receive NRG common stock after the completion of the performance period, typically three years of service from the date of grant. The number of shares of NRG common stock to be paid (if any) as of the vesting date for each RPSU will depend on the Company's percentile rank within the Peer Group. The number of shares of common stock to be paid as of the vesting date for each RPSU is linearly interpolated for TSR performance between the following points: (i) 0% if ranked below the 25th percentile; (ii) 25% if ranked at the 25th percentile; (iii) 100% if ranked at the 55th percentile (or the 65th percentile if the Company's absolute TSR is less than negative 15%); and (iv) 200% if ranked at the 75th percentile or above.

The following table summarizes the Company's non-vested RPSU awards and changes during the year:

	Units	Weighted Average Grant-Date Fair Value per Unit
Non-vested at December 31, 2023	671,889	\$ 46.27
Granted	380,370	62.48
Forfeited	(22,623)	52.55
Vested	(316,685)	49.50
Non-vested at December 31, 2024	712,951	53.10

The weighted average grant date fair value of RPSUs granted during the years ended December 31, 2024, 2023 and 2022, was \$62.48, \$39.46 and \$57.41, respectively.

The fair value of RPSUs is estimated on the date of grant using a Monte Carlo simulation model and expensed over the service period, which equals the vesting period. Significant assumptions used in the fair value model with respect to the Company's RPSUs are summarized below:

	2024	2023	2022
Expected volatility	34.46 %	41.35 %	37.54 %
Expected term (in years)	3	3	3
Risk free rate	4.05 %	4.18 %	0.97 %

The expected volatility is calculated based on NRG's historical stock price volatility data over the period commensurate with the expected term of the RPSU, which equals the vesting period.

NRG Energy, Inc. 2020 Omnibus Incentive Plan (Legacy Vivint)

Effective March 10, 2023, in connection with the Vivint Smart Home Acquisition, as discussed in Note 4, *Acquisitions and Dispositions*, NRG assumed the NRG Energy, Inc. 2020 Omnibus Incentive Plan (Legacy Vivint) (formerly known as Vivint Smart Home, Inc. Long-Term Incentive Plan) or Vivint LTIP. In addition to the rollover awards converted as part of the Acquisition, the Vivint LTIP provides for issuances of time-based restricted stock units and performance-based restricted stock units. As of December 31, 2024 and 2023, 17,500,000 shares of NRG common stock were authorized for issuance under the Vivint LTIP. There were 12,557,143 and 12,749,736 shares of common stock remaining available for grants under the Vivint LTIP as of December 31, 2024 and 2023, respectively.

Restricted Stock Units

As of December 31, 2024, RSUs under the Vivint LTIP include RSUs which were granted prior to the Acquisition and were converted into awards that vest as NRG common stock ("Rollover RSUs"). These awards typically had four-year graded vesting schedules beginning on the grant date. The fair value of the Rollover RSUs is based on the fair value of NRG common stock on the Acquisition date after applying the conversion ratio as per the Merger Agreement. The RSUs that were granted following the Acquisition date are typically subject to the same terms as the RSUs under the NRG LTIP.

The following table summarizes the non-vested RSUs under the Vivint LTIP and changes during the year:

	Rollover RSUs		RSUs granted following the Acquisition	
	Units	Weighted Average Grant Date Fair Value per Unit	Units	Weighted Average Grant Date Fair Value per Unit
Non-vested at December 31, 2023	2,984,901	\$ 31.63	780,298	\$ 35.24
Granted following the Acquisition date	—	—	800,032	56.02
Forfeited	(194,314)	31.63	(82,973)	41.38
Vested	(1,440,844)	31.63	(318,774)	39.52
Non-vested at December 31, 2024	1,349,743	31.63	1,178,583	47.19

The total fair value of RSUs vested during the years ended December 31, 2024 and 2023 was \$159 million and \$66 million, respectively. The weighted average grant date fair value of RSUs granted during the years ended December 31, 2024 and 2023 was \$56.02 and \$35.24, respectively.

Relative Performance Stock Units

As of December 31, 2024 and 2023, RPSUs granted under the Vivint LTIP are generally granted under the same terms as the RPSUs granted under the NRG LTIP, and are valued using the same methods and assumptions. The following table summarizes the Company's non-vested RPSUs under the Vivint LTIP and changes during the year:

	Units	Weighted Average Grant Date Fair Value per Unit
Non-vested at December 31, 2023	102,837	\$ 44.96
Granted	71,568	66.44
Forfeited	—	—
Vested	—	—
Non-vested at December 31, 2024	174,405	53.63

There were no RPSUs vested during the year ended December 31, 2024 and 2023. The weighted average grant date fair value of RPSUs granted during the years ended December 31, 2024 and 2023 was \$66.44 and \$44.96, respectively.

Supplemental Information

The following table summarizes NRG's total compensation expense recognized for the years presented, as well as total non-vested compensation costs not yet recognized and the period over which this expense is expected to be recognized as of December 31, 2024, for each of the types of awards issued under the LTIPs. Minimum tax withholdings of \$50 million, \$22 million, and \$6 million for the years ended December 31, 2024, 2023, and 2022, respectively, are reflected as a reduction to additional paid-in capital on the Company's consolidated balance sheets.

(In millions, except weighted average data)	Compensation Expense			Non-vested Compensation Cost	
	Year Ended December 31,			Unrecognized Total Cost	Weighted Average Recognition Period Remaining (In years)
	2024	2023	2022	As of December 31, 2024	2024
Award					
RSUs under NRG LTIP	\$ 29	\$ 20	\$ 15	\$ 17	1.52
RSUs under Vivint LTIP	56	76	—	48	1.32
DSUs	3	2	2	—	0.00
RPSUs under NRG LTIP	11	3	11	15	1.17
RPSUs under Vivint LTIP	3	2	—	5	1.55
PRSUs ^(a)	43	20	6	68	1.33
Total	\$ 145	\$ 123	\$ 34	\$ 153	
Tax (benefit)/detriment recognized	\$ (14)	\$ 2	\$ 3		

(a) Phantom Restricted Stock Units, PRSUs, are liability-classified time-based awards that typically vest ratably over a three-year period. The amount to be paid upon vesting is based on NRG's closing stock price for the period.

Note 21 — Related Party Transactions

NRG provides services to some of its related parties, who are accounted for as equity method investments, under operations and maintenance agreements. Fees for the services under these agreements include recovery of NRG's costs of operating the plants. Certain agreements also include fees for administrative service, a base monthly fee, profit margin and/or annual incentive bonus.

The following table summarizes NRG's material related party transactions with third-party affiliates:

(In millions)	Year Ended December 31,		
	2024	2023	2022
Revenues from Related Parties Included in Revenues			
Gladstone	\$ 4	\$ 4	\$ 4
Ivanpah ^(a)	60	78	42
Midway-Sunset	4	2	6
Total	\$ 68	\$ 84	\$ 52

(a) Includes fees under project management agreements with each project company

Note 22 — Commitments and Contingencies

Commitments

NRG has entered into long-term contractual arrangements related to energy products, including power purchases, gas transportation and storage, fuel and transportation services and generation projects. These contracts are not included in the consolidated balance sheet as of December 31, 2024.

As of December 31, 2024, the Company's minimum commitments under such outstanding agreements are estimated as follows:

Period	(In millions)
2025	\$ 2,414
2026	2,422
2027	1,392
2028	941
2029	624
Thereafter	1,190
Total ^(a)	\$ 8,983

(a) The year 2025 does not include an additional \$1.5 billion of short-term commitments. Increase from 2023 is primarily due to NPNS election for certain existing derivative contracts. For further discussion, see Note 6, *Accounting for Derivative Instruments and Hedging Activities*.

The Company's actual costs may be significantly higher than these estimated minimum unconditional long-term firm commitments with remaining term in excess of one year. For the years ended December 31, 2024, 2023 and 2022, the costs of fuel and purchased energy were \$12.2 billion, \$13.4 billion and \$19.6 billion, respectively.

First Lien Structure

NRG has granted first liens to certain counterparties on a substantial portion of property and assets owned by NRG and the guarantors of its senior debt. NRG uses the first lien structure to reduce the amount of cash collateral and letters of credit that it would otherwise be required to post from time to time to support its obligations under out-of-the-money hedges. To the extent that the underlying hedge positions for a counterparty are out-of-the-money to NRG, the counterparty would have a claim under the first lien program. As of December 31, 2024, all hedges under the first liens were in-the-money on a counterparty aggregate basis.

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. NRG records accruals 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 accrual for the applicable legal matters, including regulatory and environmental matters as further discussed in Note 23, *Regulatory Matters*, and Note 24, *Environmental Matters*. In addition, legal costs are expensed as incurred. Management has assessed each of the following matters based on current information and made a judgment concerning its potential outcome, considering the nature of the claim, the amount and nature of damages sought, and the probability of success. Unless specified below, the Company is unable to predict the outcome of these legal proceedings 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 accruals and that such difference could be material.

In addition to the legal proceedings noted below, NRG 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 NRG's consolidated financial position, results of operations, or cash flows.

Environmental Lawsuits

Sierra club et al. v. Midwest Generation LLC — In 2012, several environmental groups filed a complaint against Midwest Generation with the Illinois Pollution Control Board ("IPCB") alleging violations of environmental law resulting in groundwater contamination. In June 2019, the IPCB found in an interim order that Midwest Generation violated the law because it had improperly handled coal ash at four facilities in Illinois and caused or allowed coal ash constituents to impact groundwater. On September 9, 2019, Midwest Generation filed a Motion to Reconsider numerous issues, which the court

granted in part and denied in part on February 6, 2020. In 2023, the IPCB held hearings regarding the appropriate relief. Midwest Generation has been working with the Illinois EPA to address the groundwater issues since 2010.

Consumer Lawsuits

Similar to other energy service companies ("ESCOs") operating in the industry, from time-to-time, the Company and/or its subsidiaries may be subject to consumer lawsuits in various jurisdictions where they sell natural gas and electricity.

Variable Price Case

Mirkin v. XOOM Energy (E.D.N.Y. Aug. 2019) — XOOM Energy is a defendant in a putative class action lawsuit pending in New York, alleging that XOOM Energy promised that consumers would pay the same or less than they would have paid if they stayed with their default utility or previous energy supplier. The Court denied XOOM's motion for summary judgment and granted class certification. The Second Circuit denied XOOM's request to appeal the class certification grants. XOOM prevailed in its challenge to Mirkin's expert reports. The Court granted XOOM's motion to exclude both reports on damages. As a result, Mirkin has no method to establish damages for its class. The Court asked for further briefing on whether class certification can stand in light of the recent ruling. This matter was known and accrued for at the time of the XOOM acquisition.

Telephone Consumer Protection Act ("TCPA") Cases — In the cases set forth below, referred to as the TCPA Cases, such actions involve consumers alleging violations of the Telephone Consumer Protection Act of 1991, as amended, by receiving calls, texts or voicemails without consent in violation of the federal Telemarketing Sales Rule, and/or state counterpart legislation. The underlying claims of each case are similar. The Company denies the allegations asserted by plaintiffs and intends to vigorously defend these matters. These matters were known and accrued for at the time of the Direct Energy acquisition.

There are two putative class actions pending against Direct Energy: (1) *Holly Newman v. Direct Energy, LP* (D. Md Sept 2021) - Direct Energy filed its Motion to Dismiss asserting the ruling in the *Brittany Burk v. Direct Energy* (S.D. Tex. Feb 2019) preempts the Plaintiff's ability to file suit based on the same facts. The Court denied Direct Energy's motion stating the Court does not have the benefit of all of the facts that were in front of the Burk court to issue a similar ruling. On April 12, 2023, the Court granted Direct Energy's Motion to Transfer Venue, moving to the case to the Southern District of Texas. The parties are proceeding with written discovery; and (2) *Matthew Dickson v. Direct Energy* (N.D. Ohio Jan. 2018) - The case was stayed pending the outcome of an appeal to the Sixth Circuit based on the unconstitutionality of the TCPA during the period from 2015-2020. The Sixth Circuit found the TCPA was in effect during that period and remanded the case back to the trial court. Direct Energy refiled its motions along with supplements. On March 25, 2022, the Court granted summary judgment in favor of Direct Energy and dismissed the case. Dickson appealed. The Sixth Circuit found that Dickson has standing and reversed the trial court's dismissal of the case. The matter is back at the trial court. The parties conducted fact and expert discovery and Direct Energy submitted its motion for summary judgment in August 2024.

Sales Practice Lawsuit

A Vivint Smart Home competitor has made a claim against Vivint Smart Home alleging, among other things, that Vivint Smart Home's sales representatives used deceptive sales practices. This matter was known and accrued for at the time of the Vivint Smart Home acquisition. *CPI Security Systems, Inc. ("CPI") v. Vivint Smart Home, Inc.* (W.D.N.C. Sept. 2020) was filed in 2020, went to trial, and in February 2023, the jury issued a verdict against Vivint Smart Home, in favor of CPI for \$50 million of compensatory damages and an additional \$140 million of punitive damages. Vivint Smart Home has fully briefed the appeal and oral argument was conducted on January 28, 2025. While Vivint Smart Home believes the CPI jury verdict is not legally or factually supported and awaits the issuance of the appellate court's opinion, there can be no assurance that such defense efforts will be successful. This matter was adequately accrued for as of December 31, 2024.

SB IP Holdings LLC ("Skybell") v. Vivint Smart Home, Inc. — On October 23, 2023, a jury in the U.S. District Court, Eastern District of Texas, Sherman Division, issued a verdict against the Company in favor of Skybell for \$45 million in damages for patent infringement. The patents that were the basis for the claims made by Skybell were ruled invalid by the U.S. International Trade Commission in November 2021. The Company does not believe the verdict is legally supported and is pursuing appellate remedies along with any other legal options available. At the time of the Vivint Smart Home acquisition, this matter was known and accrued for at the amount that was determined to be probable and reasonably estimable.

Contract Dispute

STP — In July 2023, the partners in STP, CPS and Austin Energy, initiated a lawsuit and filed to intervene in the license transfer application with the NRC, claiming a right of first refusal exists in relation to the proposed sale of NRG South Texas' 44% interest in STP to Constellation. The parties entered into a settlement agreement in May 2024, and the litigation was dismissed. There was no incremental impact to NRG as a result of the settlement.

Winter Storm Uri Lawsuits

The Company has been named in certain property damage and wrongful death claims that have been filed in connection with Winter Storm Uri in its capacity as a generator and a REP. Most of the lawsuits related to Winter Storm Uri are consolidated into a single multi-district litigation matter in Harris County District Court. NRG's REPs have since been dismissed from the multi-district litigation. As a power generator, the Company is named in various cases with claims ranging from wrongful death; personal injury only; property damage and personal injury; property damage only; and subrogation. The First Court of Appeals conditionally granted the generators' mandamus relief, ordering the trial court to grant the generator defendants' Motion to Dismiss. The plaintiffs challenged the ruling and the matters are stayed pending appeals by the various parties. The Company intends to vigorously defend these matters.

Note 23 — Regulatory Matters

Environmental regulatory matters are discussed within Note 24, *Environmental Matters*.

NRG operates in a highly regulated industry and is subject to regulation by various federal, state and provincial agencies. As such, NRG is affected by regulatory developments at the federal, state and provincial levels and in the regions in which NRG operates. In addition, NRG is subject to the market rules, procedures, and protocols of the various ISO and RTO markets in which NRG participates. These power markets are subject to ongoing legislative and regulatory changes that may impact NRG's wholesale and retail operations.

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

California Station Power — As the result of unfavorable final and non-appealable litigation, the Company accrued a liability associated with consumption of station power at the Company's Encina power plant facility in California after August 30, 2010. The Company has established an appropriate accrual pending potential regulatory action by San Diego Gas & Electric regarding the Company's Encina facility.

Federal Trade Commission Investigation — In 2019, Vivint Smart Home received a civil investigative demand from the staff of the Federal Trade Commission ("FTC") concerning potential violations of the Fair Credit Reporting Act and the "Red Flags Rule" thereunder, and the FTC Act. In April 2021, Vivint Smart Home entered into a settlement with the FTC that resolved this investigation. As part of this settlement, Vivint Smart Home paid \$20 million and agreed to implement various additional compliance related measures ("Stipulated Order"). The Company is engaged in ongoing discussions with the staff of the FTC regarding the Company's compliance with the terms of the Stipulated Order. Under the terms of the Stipulated Order, Vivint Smart Home is required to undertake biennial assessments by an independent third-party assessor (the "Assessor"), which reviews Vivint Smart Home's compliance program and provides a report on Vivint Smart Home's ongoing compliance with the Stipulated Order. Since its inception until December 31, 2023, Vivint Smart Home has completed its initial assessment and its first biennial assessment as required by the Stipulated Order. In addition, Vivint Smart Home has voluntarily undertaken nine quarterly audits by the appointed Assessor. In all the assessments, Vivint Smart Home received a report from the Assessor with no findings of non-compliance of any kind.

New York State Public Service Commission ("NYSPSC") - Notice of Apparent Violation — The NYSPSC issued an order referred to as the Retail Reset Order in December 2019 that limited ESCO's offers for electric and natural gas to three compliant products: guaranteed savings from the utility default rate, a fixed rate commodity product that is priced at no more than 5% greater than the trailing 12-month average utility supply rate or New York-sourced renewable energy that is at least 50% greater than the prevailing New York Renewable Energy Standard for load serving entities. The order effectively limited ESCO offers to natural gas customers to only the guaranteed savings and capped fixed term compliant products because no equivalent renewable energy product exists for natural gas. NRG took action to comply with the order when it became effective April 16, 2021. On January 8, 2024, the NYSPSC notified eight of NRG's retail energy suppliers (serving both electricity and natural gas) of alleged non-compliance with New York regulatory requirements. Among other items, the notices allege that the NRG suppliers did not transition existing residential customers to one of the three compliant products authorized by the NYSPSC following the effective date of the order. NRG responded to the notices in February 2024. The Company believes it has complied with the Retail Reset Order and does not agree with the NYSPSC's assertions made in the notice. The outcome of this process has the potential to negatively impact the retail business in New York.

Note 24 — Environmental Matters

NRG is subject to a wide range of environmental laws in the development, construction, ownership and operation of power plants. These laws generally require that governmental permits and approvals be obtained before construction and maintained during operation of power plants. The electric generation industry has been facing increasingly stringent

requirements regarding air quality, GHG emissions, combustion byproducts, water use and discharge, and threatened and endangered species including four rules promulgated during the second quarter of 2024. In general, future laws are expected to require the addition of emissions controls or other environmental controls or to impose additional restrictions on the operations of the Company's facilities, which could have a material effect on the Company's consolidated financial position, results of operations, or cash flows. The Company has elected to use a \$1 million disclosure threshold, as permitted, for environmental proceedings to which the government is a party.

Air

CPP/ACE Rules — The attention in recent years on GHG emissions has resulted in federal and state regulations. In 2019, the EPA promulgated the ACE rule, which rescinded the CPP, which had sought to broadly regulate CO₂ emissions from the power sector. The ACE rule required states that have coal-fired EGUs to develop plans to seek heat rate improvements from coal-fired EGUs. On January 19, 2021, the D.C. Circuit vacated the ACE rule (but on February 22, 2021, at the EPA's request, stayed the issuance of the portion of the mandate that would vacate the repeal of the CPP). On June 30, 2022, the U.S. Supreme Court held that the "generation shifting" approach in the CPP exceeded the powers granted to the EPA by Congress. The Court did not address the related issues of whether the EPA may adopt only measures applied at each source. On May 9, 2024, the EPA promulgated a rule that repealed the ACE rule and significantly revised the manner in which new combustion-turbine and existing steam EGU's GHG emissions will be regulated including capturing and storing/sequestering CO₂ in some instances. This rule has been challenged by numerous parties in the D.C. Circuit including 27 states with 22 states intervening in support of the rule. The DC Circuit held oral arguments related to this rule in December 2024. On February 5, 2025, the DOJ filed a motion asking the court to hold proceedings in abeyance while the new administration evaluates the rule. The court granted the motion on February 19, 2025.

CSAPR — On March 15, 2023, the EPA signed and released a prepublication version of a final rule that sought to significantly revise the CSAPR to address the good-neighbor obligations of the 2015 ozone NAAQS for 23 states after earlier having disapproved numerous state plans to address the issue. Several states, including Texas, challenged the EPA's disapproval of their state plans. On May 1, 2023, the U.S. Court of Appeals for the Fifth Circuit stayed the EPA's disapproval of Texas' and Louisiana's state plans, which disapprovals are a condition precedent to the EPA imposing its plan on Texas and Louisiana. Several other states are also similarly situated because of similar stays. Nonetheless, on June 5, 2023, the EPA promulgated this rule. On July 31, 2023, the EPA promulgated an interim final rule that addresses the various judicial orders that have stayed several State-Implementation-Plan disapprovals by limiting the effectiveness of certain requirements of the final rule promulgated on June 5, 2023 in Texas and several other states. On June 27, 2024, the U.S. Supreme Court stayed the final rule in the 11 states where the rule had not already been stayed. The Company cannot predict the outcome of the legal challenges to the: (i) various state disapprovals; (ii) the final rule promulgated on June 5, 2023; and (iii) the interim final rule promulgated on July 31, 2023 that seeks to address the judicial orders. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Regional Haze Proposal — In May 2023, the EPA proposed to withdraw the existing Texas Sulfur Dioxide Trading Program and replace it with unit-specific SO₂ limits for 12 units in Texas to address requirements to improve visibility at National Parks and Wilderness areas. If finalized as proposed, it would result in more stringent SO₂ limits for two of the Company's coal-fired units in Texas. The Company cannot predict the outcome of this proposal.

Mercury and Air Toxics Standards ("MATS") — On May 7, 2024, the EPA promulgated a final rule that amends the MATS rule by, among other things, increasing the stringency of the filterable particulate matter standard at coal-burning units. The deadline for complying with this more stringent standard is 2027. Twenty-three states have challenged this rule in the D.C. Circuit. Accordingly, the outcome of this rulemaking is uncertain. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Water

ELG — In 2015, the EPA revised the ELG for Steam Electric Generating Facilities, which imposed more stringent requirements (as individual permits were renewed) for wastewater streams from FGD, fly ash, bottom ash and flue gas mercury control. On September 18, 2017, the EPA promulgated a final rule that, among other things, postponed the compliance dates to preserve the status quo for FGD wastewater and bottom ash transport water by two years to November 2020 until the EPA amended the rule. On October 13, 2020, the EPA amended the 2015 ELG rule by: (i) altering the stringency of certain limits for FGD wastewater; (ii) relaxing the zero-discharge requirement for bottom ash transport water; and (iii) changing several deadlines. In 2021, NRG informed its regulators that the Company intends to comply with the ELG by ceasing combustion of coal by the end of 2028 at its domestic coal units outside of Texas, and installing appropriate controls by the end of 2025 at its two plants that have coal-fired units in Texas. On May 9, 2024, the EPA promulgated a rule that revises the ELG by, among other things, further restricting the discharge of (i) FGD wastewater, (ii) bottom ash transport water, and (iii) combustion residual leachate. The rule was challenged in numerous courts, but the cases have been consolidated in the Eighth Circuit of the U.S. Court of Appeals. The outcome of the legal challenges is uncertain. On February 19, 2025, the DOJ filed a motion asking

the court to hold proceedings in abeyance while the new administration evaluates the rule. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Byproducts

In 2015, the EPA finalized the rule regulating byproducts of coal combustion (e.g., ash and gypsum) as solid wastes under the RCRA. On August 21, 2018, the D.C. Circuit found, among other things, that the EPA had not adequately regulated unlined ponds and legacy surface impoundments. On August 28, 2020, the EPA finalized "A Holistic Approach to Close Part A: Deadline to Initiate Closure," which amended the April 2015 Rule to address the August 2018 D.C. Circuit decision and extend some of the deadlines. On November 12, 2020, the EPA finalized "A Holistic Approach to Closure Part B: Alternative Demonstration for Unlined Surface Impoundments," which further amended the April 2015 Rule to, among other things, provide procedures for requesting approval to operate existing ash impoundments with an alternate liner. On May 8, 2024, the EPA promulgated a rule that establishes requirements for: (i) inactive (or legacy) surface impoundments at inactive facilities and (ii) CCR management units (regardless of how or when the CCR was placed) at regulated facilities. The rule also creates an obligation to conduct site assessments (at all active and certain inactive facilities) to determine whether CCR management units are present. The rule has been challenged in the D.C. Circuit and the outcome of the legal challenges is uncertain. The Company anticipates that the new U.S. presidential administration will revisit this rule.

Note 25 — Cash Flow Information

Detail of supplemental disclosures of cash flow and non-cash investing and financing information was:

(In millions)	Year Ended December 31,		
	2024	2023	2022
Interest paid, net of amount capitalized	\$ 626	\$ 548	\$ 383
Income taxes paid, net of refunds	182	48	66
Non-cash investing and financing activities:			
Decreases to fixed assets for accrued capital expenditures	(76)	—	(68)
Excise tax accrued on share repurchases	9	10	—

Note 26 — Guarantees

NRG and its subsidiaries enter into various contracts that include indemnification and guarantee provisions as a routine part of the Company's business activities. Examples of these contracts include asset purchases and sale agreements, commodity sale and purchase agreements, retail contracts, joint venture agreements, EPC agreements, operation and maintenance agreements, service agreements, settlement agreements, 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. The Company is obligated with respect to customer deposits associated with the Company's retail operations. In some cases, NRG's maximum potential liability cannot be estimated, since the underlying agreements contain no limits on potential liability.

The following table summarizes the maximum potential exposures that can be estimated for NRG's guarantees, indemnities, and other contingent liabilities by maturity:

(In millions)	By Remaining Maturity at December 31,					
	2024					2023 Total
	Under 1 Year	1-3 Years	3-5 Years	Over 5 Years	Total	
Guarantees						
Letters of credit and surety bonds	\$ 3,996	\$ 181	\$ 11	\$ —	\$ 4,188	\$ 4,592
Asset sales guarantee obligations	11	20	18	53	102	126
Other guarantees	—	—	—	27	27	27
Total guarantees	\$ 4,007	\$ 201	\$ 29	\$ 80	\$ 4,317	\$ 4,745

Letters of credit and surety bonds — As of December 31, 2024, NRG and its consolidated subsidiaries were contingently obligated for a total of \$4.2 billion under letters of credit and surety bonds. Most of these letters of credit and surety bonds are issued in support of the Company's obligations to perform under commodity agreements and obligations associated with future closure and maintenance of ash sites, as well as for financing or other arrangements. A majority of these letters of credit and surety bonds expire within one year of issuance, and it is typical for the Company to renew them on similar terms.

The material indemnities, within the scope of ASC 460, are as follows:

Asset sales — The purchase and sale agreements which govern NRG's asset or share investments and divestitures customarily contain guarantees and indemnifications of the transaction to third parties. The contracts indemnify the parties for liabilities incurred as a result of a breach of a representation or warranty by the indemnifying party, changes in tax laws or for pre-existing environmental matters. These obligations generally have a discrete term and are intended to protect the parties against risks that are difficult to predict or estimate at the time of the transaction. In several cases, the contract limits the liability of the indemnifier. NRG has no reason to believe that the Company currently has any material liability relating to such routine indemnification obligations included in the table above, except for the California property tax indemnity for estimated increases in California property taxes of certain solar properties that the Company agreed to indemnify, as part of the agreement to sell NRG Yield and the Renewables Platform. The California property tax indemnity is estimated to be \$102 million as of December 31, 2024 and is included in the above table under asset sales guarantee obligations.

Other guarantees — NRG has issued other guarantees of obligations including payments under certain agreements with respect to certain of its unconsolidated subsidiaries, payment or performance by fuel providers and payment or reimbursement of credit support and deposits. The Company does not believe that it will be required to perform under these guarantees.

Other indemnities — Other indemnifications NRG has provided cover operational, tax, litigation and breaches of representations, warranties and covenants. NRG has also indemnified, on a routine basis in the ordinary course of business, consultants or other vendors who have provided services to the Company. NRG's maximum potential exposure under these indemnifications can range from a specified dollar amount to an indeterminate amount, depending on the nature of the transaction. Total maximum potential exposure under these indemnifications is not estimable due to uncertainty as to whether claims will be made or how they will be resolved. NRG does not have any reason to believe that the Company will be required to make any material payments under these indemnity provisions.

Because many of the guarantees and indemnities NRG 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 described above. For those guarantees and indemnities that do not limit the Company's liability exposure, it may not be able to estimate what the Company's liability would be, until a claim is made for payment or performance, due to the contingent nature of these contracts.

Note 27 — Jointly Owned Plant

NRG owns an undivided interest in Cedar Bayou. Cedar Bayou is maintained and operated pursuant to its joint ownership participation and operating agreement. NRG is responsible for its subsidiary's share of operating costs and direct expenses and includes its proportionate share of the facility and related revenues and direct expenses in the jointly-owned plant in the corresponding balance sheet and income statement captions of the Company's consolidated financial statements.

The following table summarizes NRG's proportionate ownership interest in the Company's jointly-owned facility:
(In millions unless otherwise stated)

As of December 31, 2024	Ownership Interest		Property, Plant & Equipment	Accumulated Depreciation	Construction in Progress
Cedar Bayou Unit 4, Baytown, TX	50.00	%	\$ 222	\$ (125)	\$ 5

Note 28 — Balance Sheet Components

The components of accrued expenses and other current liabilities are as follows:

(In millions)	Year Ended December 31,	
	2024	2023
Accrued RECs	\$ 477	\$ 435
Accrued compensation and employee benefits	514	452
Other	1,040	755
Total accrued expenses and other current liabilities	\$ 2,031	\$ 1,642

SCHEDULE II— VALUATION AND QUALIFYING ACCOUNTS

For the Years Ended December 31, 2024, 2023 and 2022

(In millions)	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at End of Period
Allowance for credit losses, deducted from accounts receivable and other non-current assets					
Year Ended December 31, 2024	\$ 145	\$ 314	\$ 18	\$ (325) ^(a)	\$ 152
Year Ended December 31, 2023	133	251	35	(274) ^(a)	145
Year Ended December 31, 2022	683	11	—	(561) ^(a)	133
Income tax valuation allowance, deducted from deferred tax assets					
Year Ended December 31, 2024	\$ 275	\$ (131)	\$ —	\$ —	\$ 144
Year Ended December 31, 2023	224	42	9	—	275
Year Ended December 31, 2022	248	(20)	(4)	—	224

(a) Represents principally net amounts charged as uncollectible

EXHIBIT INDEX

Number	Description	Method of Filing
2.1	Third Amended Joint Plan of Reorganization of GenOn Energy, Inc. and its Debtor Affiliates.	Incorporated herein by reference to Exhibit 2.1 to the Registrant's current report on Form 8-K filed on December 18, 2017.
2.2†^	Purchase and Sale Agreement, dated as of February 6, 2018, by and among NRG Energy, Inc. and NRG Repowering Holdings LLC, and GIP III Zephyr Acquisition Partners, L.P.	Incorporated herein by reference to Exhibit 2.9 to the Registrant's annual report on Form 10-K filed on March 1, 2018.
2.3^	Purchase and Sale Agreement, dated as of February 6, 2018, by and between NRG Energy, Inc., NRG South Central Generating LLC, and Cleco Energy LLC.	Incorporated herein by reference to Exhibit 2.10 to the Registrant's annual report on Form 10-K filed on March 1, 2018.
2.4‡	Purchase and Sale Agreement dated as of February 28, 2021 by and between NRG Energy, Inc., and Generation Bridge Acquisition, LLC, as a Purchaser	Incorporated herein by reference to Exhibit 2.1 to the Registrant's quarterly report on Form 10-Q filed on May 6, 2021.
2.5^	Agreement and Plan of Merger dated as of December 6, 2022, by and among the Company, Merger Sub and Vivint.	Incorporated herein by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed on December 6, 2022.
2.6	Equity Purchase Agreement, dated May 31, 2023 by and among Constellation Energy Generation, LLC, as Buyer and Texas Genco GP, LLC, Texas Genco LP, LLC, together, Seller.	Incorporated herein by reference to Exhibit 2.1 to the Registrant's current report on Form 8-K filed on June 1, 2023.
2.7	Amendment No.1 to Equity Purchase Agreement dated September 29, 2023 by and among Constellation Energy Generation, LLC, as Buyer and Texas Genco GP, LLC, together, Seller	Incorporated herein by reference to Exhibit 2.7 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
2.8	Amendment No. 2 to Equity Purchase Agreement dated November 1, 2023 by and among Constellation Energy Generation, LLC, as Buyer and Texas Genco GP, LLC, together, Seller	Incorporated herein by reference to Exhibit 2.8 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
2.9	Amendment No. 3 to Equity Purchase Agreement dated November 1, 2023 by and among Constellation Energy Generation, LLC, as Buyer and Texas Genco GP, LLC, together, Seller	Incorporated herein by reference to Exhibit 2.9 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
3.1	Amended and Restated Certificate of Incorporation.	Incorporated herein by reference to Exhibit 3.1 to the Registrant's quarterly report on Form 10-Q filed on May 3, 2012.
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation.	Incorporated herein by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed on December 14, 2012.
3.3	Sixth Amended and Restated By-Laws.	Incorporated herein by reference to Exhibit 3.2 to the Registrant's current report on Form 8-K filed on December 2, 2022.
3.4	Series A Preferred Stock Certificate of Designation filed with the Secretary of the State of Delaware on March 9, 2023.	Incorporated herein by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed on March 10, 2023.
4.1	Specimen of Certificate representing common stock of NRG Energy, Inc.	Incorporated herein by reference to Exhibit 4.3 to the Registrant's quarterly report on Form 10-Q filed on August 4, 2006.
4.2	Indenture, dated May 24, 2018, among NRG Energy, Inc., the guarantors named therein and Delaware Trust Company, as trustee, containing Form of 2.750% Convertible Senior Notes due 2048.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on May 25, 2018.
4.3	Supplemental Indenture (Settlement Elections - 2.750% Convertible Senior Notes due 2048) dated February 22, 2022, among NRG Energy, Inc., each of its guarantor subsidiaries, and Delaware Trust Company as trustee.	Incorporated herein by reference to Exhibit 4.52 to the Registrant's annual report on Form 10-K filed on February 24, 2022.
4.4	Base Indenture, dated May 23, 2016, between NRG Energy, Inc. and Delaware Trust Company (as successor in interest to Law Debenture Trust Company of New York), as trustee.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on May 23, 2016.
4.5	Fourth Supplemental Indenture, dated December 7, 2017, among NRG Energy, Inc., the guarantors named therein and Delaware Trust Company, as trustee, containing Form of 5.750% Senior Notes due 2028.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on December 8, 2017.

4.6	Fifth Supplemental Indenture, dated May 14, 2019, among NRG Energy, Inc., the guarantors named therein and Delaware Trust Company, as trustee, containing Form of 5.250% Senior Notes due 2029.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on May 16, 2019.
4.7	Base Indenture, dated December 2, 2020, between NRG Energy, Inc. and Deutsche Bank Trust Company Americas, as trustee, pertaining to the Secured Notes.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed on December 4, 2020.
4.8	Supplemental Indenture, dated December 2, 2020, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form of 3.375% Senior Notes due 2029 and Form of 3.625% Senior Notes due 2031.	Incorporated herein by reference to Exhibit 4.6 to the Registrant's Current Report on Form 8-K, filed on December 4, 2020.
4.9	Second Supplemental Indenture, dated August 23, 2021, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form of 3.875% Senior Notes due 2032.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on August 23, 2021.
4.10	Base Indenture, dated October 30, 2024, between NRG Energy, Inc. and Deutsche Bank Trust Company Americas, as trustee, pertaining to the Notes.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's current report on Form 8-K filed on November 1, 2024.
4.11	Supplemental Indenture, dated October 30, 2024, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form 5.75% Senior Note due 2029, Form of 6.00% Senior Notes due 2033 and Form of 6.25% Senior Notes due 2034.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's current report on Form 8-K filed on November 1, 2024.
4.12	Base Indenture, dated May 28, 2019, between NRG Energy, Inc. and Delaware Trust Company, as trustee.	Incorporated herein by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on May 30, 2019.
4.13	Supplemental Indenture, dated May 28, 2019, among NRG Energy, Inc., the guarantors named therein and Delaware Trust Company, as trustee, containing Form 3.750% Senior Secured First Lien Notes due 2024 and Form of 4.450% Senior Secured First Lien Notes due 2029.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on May 30, 2019.
4.14	Base Indenture, dated December 2, 2020, between NRG Energy, Inc. and Deutsche Bank Trust Company Americas, as trustee, pertaining to the Unsecured Notes.	Incorporated herein by reference to Exhibit 4.5 to the Registrant's Current Report on Form 8-K, filed on December 4, 2020.
4.15	Supplemental Indenture, dated December 2, 2020, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form of 2.000% Senior Secured First Lien Notes due 2025 and Form of 2.450% Senior Secured First Lien Notes due 2027.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K, filed on December 4, 2020.
4.16	Supplemental Indenture, dated March 9, 2023, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form of 7.000% Senior Secured First Lien Notes Due 2033.	Incorporated herein by reference to Exhibit 4.2 to the Registrant's current report on Form 8-K filed on March 10, 2023.
4.17	Base Indenture, dated August 29, 2023, between NRG Energy, Inc. and Deutsche Bank Trust Company Americas, as trustee, pertaining to the Alexander Funding Trust II Pre-Capitalized Trust Securities.	Incorporated herein by reference to Exhibit 4.4 to the Registrant's current report on Form 8-K filed on August 29, 2023.
4.18	Supplemental Indenture, dated August 29, 2023, among NRG Energy, Inc., the guarantors named therein and Deutsche Bank Trust Company Americas, as trustee, containing Form 7.467% Senior Secured First Lien Notes due 2028.	Incorporated herein by reference to Exhibit 4.5 to the Registrant's current report on Form 8-K filed on August 29, 2023.
4.19	Description of NRG Energy, Inc. securities registered pursuant to section 12 of the Securities Exchange Act of 1934	Incorporated herein by reference to Exhibit 4.15 to the Registrant's Annual Report on Form 10-K, filed on February 27, 2020.
10.1*	The NRG Energy, Inc. Amended and Restated Long-Term Incentive Plan	Incorporated herein by reference to Exhibit 10.3 to the Registrant's quarterly report on Form 10-Q filed on August 8, 2024.
10.2*	Form of NRG Energy, Inc. Long-Term Incentive Plan Restricted Stock Unit Agreement.	Incorporated herein by reference to Exhibit 10.24 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.3*	Form of NRG Energy, Inc. Long-Term Incentive Plan Deferred Stock Unit Agreement for Directors.	Incorporated herein by reference to Exhibit 10.15 to the Registrant's annual report on Form 10-K filed on March 30, 2005.

10.4*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Officers.	Incorporated herein by reference to Exhibit 10.73 to the Registrant's annual report on Form 10-K filed on March 1, 2018.
10.5*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Senior Vice Presidents.	Incorporated herein by reference to Exhibit 10.74 to the Registrant's annual report on Form 10-K filed on March 1, 2018.
10.6*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Executive Vice Presidents	Incorporated herein by reference to Exhibit 10.22 to the Registrant's annual report on Form 10-K filed on February 24, 2022.
10.7*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Senior Vice Presidents.	Incorporated herein by reference to Exhibit 10.23 to the Registrant's annual report on Form 10-K filed on February 24, 2022.
10.8*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Senior Vice Presidents.	Incorporated herein by reference to Exhibit 10.23 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.9*	Restricted Stock Unit Agreement, dated December 15, 2023, between NRG Energy, Inc. and Lawrence S. Cohen	Incorporated herein by reference to Exhibit 10.25 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.10*	Relative Performance Stock Unit Agreement, dated August 1, 2024, between NRG Energy, Inc. and Lawrence S. Cohen	Filed herewith
10.11*	Form of NRG Energy, Inc. Long-Term Incentive Plan Restricted Stock Unit Agreement for Chief Executive Officer	Filed herewith
10.12*	Form of NRG Energy, Inc. Long-Term Incentive Plan Relative Performance Stock Unit Agreement for Chief Executive Officer	Filed herewith
10.13*	NRG Energy, Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) (formerly known as the Vivint Smart Home, Inc. Long-Term Incentive Plan)	Incorporated herein by reference to Exhibit 4.4 to Vivint Smart Home's Post-Effective Amendment on Form S-8 to Registration Statement on Form S-4 filed with the Securities and Exchange Commission on March 24, 2020
10.14*	Amendment to NRG Energy, Inc. 2020 Omnibus Incentive Plan (Legacy Vivint)	Incorporated herein by reference to Exhibit 10.1 to the Registrant's quarterly report on Form 10-Q filed on August 8, 2023.
10.15*	Second Amendment to NRG Energy, Inc. 2020 Omnibus Incentive Plan (Legacy Vivint)	Filed herewith.
10.16*	Form of NRG Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) Relative Performance Stock Unit Agreement and Notice of Grant	Incorporated herein by reference to Exhibit 10.2 to the Registrant's quarterly report on Form 10-Q filed on May 4, 2023.
10.17*	Form of NRG Energy, Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) Restricted Stock Unit Agreement and Notice of Grant	Incorporated herein by reference to Exhibit 10.3 to the Registrant's quarterly report on Form 10-Q filed on May 4, 2023.
10.18*	Form of NRG Energy, Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) Relative Performance Stock Unit Agreement and Notice of Grant	Incorporated herein by reference to Exhibit 10.29 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.19*	Form of NRG Energy, Inc., 2020 Omnibus Incentive Plan (Legacy Vivint) Restricted Stock Unit Agreement and Notice of Grant	Incorporated herein by reference to Exhibit 10.30 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.20*	Second Amended and Restated Annual Incentive Plan for Designated Corporate Officers.	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on May 7, 2015.
10.21*	NRG Energy, Inc. Amended and Restated Executive Change-in-Control and General Severance Plan for Tier IA and Tier IIA Executives (Amended and Restated Effective January 1, 2024).	Incorporated herein by reference to Exhibit 10.10 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
10.22*	Amended and Restated Employee Stock Purchase Plan	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on May 2, 2023.
10.23*	Retention letter, dated December 6, 2022, between Vivint Smart Home, Inc. and Rasesh Patel.	Incorporated herein by reference to Exhibit 10.45 to Vivint Smart Home, Inc.'s Annual Report on Form 10-K for the annual period ended December 31, 2022.
10.24*	Amended and Restated Employment Agreement, dated June 20, 2022, between Vivint Smart Home, Inc. and Rasesh Patel	Incorporated by reference to Exhibit 10.5 to Vivint Smart Home, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2022

10.25*	Employment Agreement, dated August 1, 2024 by and between NRG Energy, Inc. and Lawrence S. Cohen	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on August 1, 2024.
10.26	Second Amended and Restated Credit Agreement, dated as of July 9, 2021, among APX Group Holdings, Inc., as Holdings, APX Group, Inc., as the borrower, the guarantors party hereto from time to time, Bank of America, N.A., as administrative agent, swing line lender and an LC issuer,	Incorporated herein by reference to Exhibit 10.2 to Vivint Smart Home, Inc.'s Current Report on Form 8-K filed on July 12, 2021.
10.27	Amendment No.1 to the Second Amended and Restated Credit Agreement, dated as of June 9, 2023, by and between AXP Group, Inc. as borrower and the Bank of America, N.A., as administrative agent,	Incorporated herein by reference to Exhibit 4.1 to the Registrant's quarterly report on Form 10-Q filed on August 8, 2023.
10.28	Amendment No. 2 to the Second Amended and Restated Credit Agreement, dated as of April 10, 2024, by and between, among others, APX Group, Inc., as borrower, Bank of America, N.A., as administrative agent and certain financial institutions, as lenders,	Incorporated herein by reference to Exhibit 10.3 to the Registrant's quarterly report on Form 10-Q filed on May 7, 2024.
10.29	Sixth Amendment to Second Amended and Restated Credit Agreement, dated as of February 14, 2023, by and among NRG Energy, Inc., its subsidiaries party thereto, the lenders and issuing banks party thereto, Citicorp North America, Inc., as administrative agent and collateral agent, and Deutsche Bank Trust Company Americas, as collateral trustee, and included as Exhibit A-2 thereto a clean conformed copy of the Second Amended and Restated Credit Agreement	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on February 15, 2023.
10.30	Seventh Amendment to Second Amended and Restated Credit Agreement, dated as of March 13, 2023, by and among NRG Energy, Inc., its subsidiaries party thereto, the lenders and issuing banks party thereto, Citicorp North America, Inc., as administrative agent and collateral agent, and Deutsche Bank Trust Company Americas, as collateral trustee,	Incorporated herein by reference to Exhibit 4.2 to the Registrant's quarterly report on Form 10-Q filed on May 4, 2023.
10.31	Eighth Amendment to Second Amended and Restated Credit Agreement, dated as of April 16, 2024, by and among NRG Energy, Inc., its subsidiaries party thereto, Citicorp North America, Inc., as administrative agent and as collateral agent, and certain financial institutions, as lenders,	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on April 17, 2024.
10.32	Ninth Amendment to Second Amended and Restated Credit Agreement, dated as of April 22, 2024, by and among NRG Energy, Inc., its subsidiaries party thereto, the consenting revolving lender party thereto, and Citicorp North America, Inc., as administrative agent and collateral agent,	Incorporated herein by reference to Exhibit 10.2 to the Registrant's quarterly report on Form 10-Q filed on May 7, 2024.
10.33	Tenth Amendment to Second Amended and Restated Credit Agreement, dated as of October 30, 2024, by and among NRG Energy, Inc., Citicorp North America, Inc., as administrative agent and as collateral agent, and certain financial institutions, as lenders,	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on November 1, 2024.
10.34	Eleventh Amendment to Second Amended and Restated Credit Agreement, dated as of October 30, 2024, by and among NRG Energy, Inc., Citicorp North America, Inc., as administrative agent and as collateral agent, and certain financial institutions, as lenders,	Incorporated herein by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed on November 1, 2024.
10.35	Thirteen Amendment to Second Amended and Restated Credit Agreement, dated as of December 20, 2024, by and among NRG Energy, Inc., AXP Group and Citicorp North America, Inc., as administrative agent,	Filed herewith.
10.36	Receivables Sale Agreement, dated as of September 22, 2020, among the Originators from time to time parties thereto, NRG Retail LLC, as Servicer, and NRG Receivables LLC,	Incorporated herein by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on September 22, 2020.
10.37	Amendment No. 3 to Receivables Loan and Servicing Agreement, dated as of June 22, 2023, among NRG Retail LLC, as Servicer, NRG Receivables LLC, as Borrower, NRG Energy, Inc., as Performance Guarantor, the Conduit Lenders, Committed Lenders, Facility Agents and LC Issuers party thereto, and Royal Bank of Canada, as administrative Agent, and included as Exhibit A-2 thereto a clean, conformed copy of the Receivables Loan and Servicing Agreement,	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on June 27, 2023.

10.38	Amendment No. 4 to Receivables Loan and Servicing Agreement, dated as of June 21, 2024, among NRG Retail LLC, as Servicer, NRG Receivables LLC, as Borrower, NRG Energy, Inc., as Performance Guarantor, the Conduit Lenders, Committed Lenders, Facility Agents and LC Issuers party thereto, and Royal Bank of Canada, as administrative Agent, and included as Exhibit A-2 thereto a clean, conformed copy of the Receivables Loan and Servicing Agreement.	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on June 24, 2024.
10.39	Joinder Agreement, dated as of June 21, 2024, by Direct Energy Services, LLC, as an additional originator and consented to by NRG Receivables LLC, as Borrower, NRG Retail LLC, as Servicer, and Royal Bank of Canada, as administrative agent, to the Receivables Sale Agreement, dated as of September 22, 2020, among the Originators from time to time parties thereto, NRG Retail LLC, as Servicer, and NRG Receivables LLC.	Incorporated herein by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed on June 24, 2024.
10.40	Facility Agreement, dated August 29, 2023, among NRG Energy, Inc., the guarantors party thereto, Alexander Funding Trust II and Deutsche Bank Trust Company Americas, as the notes trustee	Incorporated herein by reference to Exhibit 4.1 to the Registrant's current report on Form 8-K filed on August 29, 2023.
10.41	Letter of Credit Facility Agreement, dated August 29, 2023, among NRG Energy, Inc., the financial institutions from time to time party thereto as letter of credit issuers, and Deutsche Bank Trust Company Americas, as administrative agent and as collateral agent	Incorporated herein by reference to Exhibit 4.2 to the Registrant's current report on Form 8-K filed on August 29, 2023.
10.42	Amended and Restated Declaration of Trust of Alexander Funding Trust II, dated August 29, 2023, among NRG Energy, Inc. as depositor and in its own capacity, Deutsche Bank Trust Company Americas, as trustee, and Deutsche Bank Trust Company Delaware, as Delaware trustee	Incorporated herein by reference to Exhibit 4.3 to the Registrant's current report on Form 8-K filed on August 29, 2023.
10.43	Cooperation Agreement, dated as of November 20, 2023, by and among NRG Energy, Inc., Elliott Investment Management L.P., Elliott Associates, L.P., and Elliott International, L.P.	Incorporated herein by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on November 20, 2023
10.44†	Consent and Indemnity Agreement, dated as of February 6, 2018, by and among NRG Energy, Inc., NRG Repowering Holdings LLC, NRG Yield, Inc., and GIP III Zephyr Acquisition Partners, L.P., and NRG Yield Operating LLC (solely with respect to Sections E.5, E.6 and G.12).	Incorporated herein by reference to Exhibit 10.34 to NRG Yield, Inc.'s Annual Report on Form 10-K filed on March 1, 2018.
19.1	Insider Trading Policy	Filed herewith.
21.1	Subsidiaries of NRG Energy, Inc.	Filed herewith.
22.1	List of Guarantor Subsidiaries	Filed herewith.
23.1	Consent of KPMG LLP.	Filed herewith.
24.1	Power of Attorney	Included on signature page
31.1	Rule 13a-14(a)/15d-14(a) certification of Lawrence Coben	Filed herewith.
31.2	Rule 13a-14(a)/15d-14(a) certification of Woo-Sung Chung	Filed herewith.
31.3	Rule 13a-14(a)/15d-14(a) certification of G. Alfred Spencer	Filed herewith.
32	Section 1350 Certification.	Furnished herewith.
97	NRG Energy, Inc. Clawback Policy	Incorporated herein by reference to Exhibit 97 to the Registrant's annual report on Form 10-K filed on February 28, 2024.
101 INS	Inline XBRL Instance Document.	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101 SCH	Inline XBRL Taxonomy Extension Schema.	Filed herewith.
101 CAL	Inline XBRL Taxonomy Extension Calculation Linkbase.	Filed herewith.
101 DEF	Inline XBRL Taxonomy Extension Definition Linkbase.	Filed herewith.
101 LAB	Inline XBRL Taxonomy Extension Label Linkbase.	Filed herewith.
101 PRE	Inline XBRL Taxonomy Extension Presentation Linkbase.	Filed herewith.
104	Cover Page Interactive Data File (the cover page interactive data file does not appear in Exhibit 104 because it's Inline XBRL tags are embedded within the Inline XBRL document).	Filed herewith.

- * Exhibit relates to compensation arrangements.
- † 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.
- ^ 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 excluded because they are both not material and would likely cause competitive harm to the registrant if publicly disclosed. Information that has been omitted has been noted in this document with a placeholder identified by the mark “[***]”.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NRG ENERGY, INC.
(Registrant)

By: /s/ LAWRENCE S. COBEN
Lawrence S. Coben
President and Chief Executive Officer

Date: February 26, 2025

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Brian E. Curci and Christine A. Zoino, 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 Exchange Act, this report has been signed by the following persons on behalf of the registrant in the capacities indicated on February 26, 2025.

Signature	Title	Date
<u>/s/ LAWRENCE S. COBEN</u>	President and Chief Executive Officer and	
Lawrence S. Coben	Director (Principal Executive Officer, Chair of the Board)	February 26, 2025
<u>/s/ WOO-SUNG CHUNG</u>	Chief Financial Officer	
Woo-Sung Chung	(Principal Financial Officer)	February 26, 2025
<u>/s/ G. ALFRED SPENCER</u>	Chief Accounting Officer	
G. Alfred Spencer	(Principal Accounting Officer)	February 26, 2025
<u>/s/ E. SPENCER ABRAHAM</u>	Director	
E. Spencer Abraham		February 26, 2025
<u>/s/ ANTONIO CARRILLO</u>	Director	
Antonio Carrillo		February 26, 2025
<u>/s/ MATTHEW CARTER, JR.</u>	Director	
Matthew Carter, Jr.		February 26, 2025
<u>/s/ HEATHER COX</u>	Director	
Heather Cox		February 26, 2025
<u>/s/ ELISABETH B. DONOHUE</u>	Director	
Elisabeth B. Donohue		February 26, 2025
<u>/s/ MARWAN FAWAZ</u>	Director	
Marwan Fawaz		February 26, 2025
<u>/s/ KEVIN HOWELL</u>	Director	
Kevin Howell		February 26, 2025
<u>/s/ ALEX POURBAIX</u>	Director	
Alex Pourbaix		February 26, 2025
<u>/s/ ALEXANDRA PRUNER</u>	Director	
Alexandra Pruner		February 26, 2025
<u>/s/ MARCIE C. ZLOTNIK</u>	Director	
Marcie C. Zlotnik		February 26, 2025