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

FORM 10-Q

☒ **Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the Quarterly Period Ended: June 30, 2023

☐ **Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Commission File Number: 001-15891

NRG Energy, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**41-1724239**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
910 Louisiana Street Houston Texas	**77002**
(Address of principal executive offices)	(Zip Code)

(713) 537-3000

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol(s)	Name of Exchange on Which Registered
Common Stock, par value $0.01	NRG	New York Stock Exchange

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 ☒ **Accelerated filer** ☐ **Non-accelerated filer** ☐ **Smaller reporting company** ☐ **Emerging growth company** ☐

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

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

Yes ☐ **No** ☒

As of July 31, 2023, there were 229,117,430 shares of common stock outstanding, par value $0.01 per share.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This Quarterly Report on Form 10-Q 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 the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words "believes," "projects," "anticipates," "plans," "expects," "intends," "estimates," "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, many of which are beyond NRG's control, 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. Forward-looking statements are not guarantees of future results. These factors, risks and uncertainties include the factors described under *Risk Factors*, in Part II, Item 1A of this Form 10-Q and the following:

- Business uncertainties related to NRG's ability to integrate the operations of Vivint Smart Home with its own;
- 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;
- Changes in law, including judicial and regulatory decisions;
- 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;
- 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;
- 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;
- 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 Quarterly Report on Form 10-Q should not be construed as exhaustive.

GLOSSARY OF TERMS

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

2022 Form 10-K	NRG's Annual Report on Form 10-K for the year ended December 31, 2022
ACE	Affordable Clean Energy
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
ASU	Accounting Standards Updates - updates to the ASC
BTU	British Thermal Unit
Business	NRG Business, which serves business customers
CAA	Clean Air Act
CAISO	California Independent System Operator
CDD	Cooling Degree Day
CFTC	U.S. Commodity Futures Trading Commission
CO_2	Carbon Dioxide
Company	NRG Energy, Inc.
Convertible Senior Notes	As of June 30, 2023, consists of NRG's $575 million unsecured 2.75% Convertible Senior Notes due 2048
Cottonwood	Cottonwood Generating Station, a natural gas-fueled plant located in Deweyville, Texas in which NRG is leasing back through May 2025
CPP	Clean Power Plan
CPUC	California Public Utilities Commission
CWA	Clean Water Act
D.C. Circuit	U.S. Court of Appeals for the District of Columbia Circuit
Dth	Dekatherms
Economic gross margin	Sum of retail revenue, energy revenue, capacity revenue and other revenue, less cost of fuels and purchased energy and other cost of sales
EGU	Electric Generating Unit
EPA	U.S. Environmental Protection Agency
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
FTRs	Financial Transmission Rights
GAAP	Generally accepted accounting principles in the U.S.
GHG	Greenhouse Gas
Green Mountain Energy	Green Mountain Energy Company
GW	Gigawatts
GWh	Gigawatt Hour
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 upon whether the electricity output measured is gross or net generation. Heat rates are generally expressed as BTU per net kWh
Home	NRG Home, which serves residential customers
HLW	High-level radioactive waste

ICE	Intercontinental Exchange
IESO	Independent Electricity System Operator
ISO	Independent System Operator, also referred to as RTOs
ISO-NE	ISO New England Inc.
Ivanpah	Ivanpah Solar Electric Generation Station, a solar thermal power plant located in California's Mojave Desert in which NRG owns 54.5% interest
kWh	Kilowatt-hour
LaGen	Louisiana Generating, LLC
LIBOR	London Inter-Bank Offered Rate
LSEs	Load Serving Entities
LTIPs	Collectively, the NRG long-term incentive plan ("LTIP") and the NRG Vivint LTIP
MDth	Thousand Dekatherms
Midwest Generation	Midwest Generation, LLC
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	Million British Thermal Units
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
Net Exposure	Counterparty credit exposure to NRG, net of collateral
Net Revenue Rate	Sum of retail revenues less TDSP transportation charges
Nodal	Nodal Exchange is a derivatives exchange
NOL	Net Operating Loss
NOx	Nitrogen Oxides
NPNS	Normal Purchase Normal Sale
NRC	U.S. Nuclear Regulatory Commission
NRG	NRG Energy, Inc.
Nuclear Decommissioning Trust Fund	NRG's nuclear decommissioning trust fund assets, which are for the Company's portion of the decommissioning of the STP, Units 1 & 2
Nuclear Waste Policy Act	U.S. Nuclear Waste Policy Act of 1982
NYISO	New York Independent System Operator
NYMEX	New York Mercantile Exchange
OCI/OCL	Other Comprehensive Income/(Loss)
PG&E	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 $1.4 billion accounts receivables securitization facility due 2024, which was last amended on June 22, 2023
Receivables Securitization Facilities	Collectively, the Receivables Facility and the Repurchase Facility
Renewable PPA	A third-party PPA entered into directly with a renewable generation facility for the offtake of the Renewable Energy Certificates or other similar environmental attributes generated by such facility, couple with the associated power generated by that facility
REP	Retail electric provider
Repurchase Facility	NRG's $150 million uncommitted repurchase facility related to the Receivables Facility due 2024, which was last amended on June 22, 2023

Revolving Credit Facility	The Company's $4.3 billion revolving credit facility due 2028, was last amended on March 13, 2023
RGGI	Regional Greenhouse Gas Initiative
RTO	Regional Transmission Organization, also referred to as ISOs
SEC	U.S. Securities and Exchange Commission
Securities Act	The Securities Act of 1933, as amended
Senior Notes	As of June 30, 2023, NRG's $4.6 billion outstanding unsecured senior notes consisting of $375 million of the 6.625% senior notes due 2027, $821 million of 5.75% senior notes due 2028, $733 million of the 5.25% senior notes due 2029, $500 million of the 3.375% senior notes due 2029, $1.0 billion of the 3.625% senior notes due 2031 and $1.1 billion of the 3.875% senior notes due 2032
Senior Secured First Lien Notes	As of June 30, 2023, NRG’s $3.2 billion outstanding Senior Secured First Lien Notes consists of $600 million of the 3.75% Senior Secured First Lien Notes due 2024, $500 million of the 2.0% Senior Secured First Lien Notes due 2025, $900 million of the 2.45% Senior Secured First Lien Notes due 2027, $500 million of the 4.45% Senior Secured First Lien Notes due 2029 and $740 million of the 7.000% Senior Secured First Lien Notes due 2033
Services	NRG Services, which primarily includes the services businesses acquired in the Direct Energy acquisition and the Goal Zero business
SNF	Spent Nuclear Fuel
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
STP	South Texas Project — nuclear generating facility located near Bay City, Texas in which NRG owns a 44% interest
STPNOC	South Texas Project Nuclear Operating Company
TDSP	Transmission/distribution service provider
TWh	Terawatt Hour
U.S.	United States of America
U.S. DOE	U.S. Department of Energy
VaR	Value at Risk
VIE	Variable Interest Entity
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 — FINANCIAL INFORMATION

ITEM 1 — CONDENSED CONSOLIDATED FINANCIAL STATEMENTS AND NOTES

NRG ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	Three months ended June 30,		Six months ended June 30,	
(In millions, except for per share amounts)	**2023**	**2022**	**2023**	**2022**
Revenue				
Revenue	$ 6,348	$ 7,282	$ 14,070	$ 15,178
Operating Costs and Expenses				
Cost of operations (excluding depreciation and amortization shown below)	4,962	5,887	13,740	10,817
Depreciation and amortization	315	157	505	340
Impairment losses	—	155	—	155
Selling, general and administrative costs	522	351	948	698
Acquisition-related transaction and integration costs	22	10	93	18
Total operating costs and expenses	5,821	6,560	15,286	12,028
Gain on sale of assets	3	32	202	29
Operating Income/(Loss)	530	754	(1,014)	3,179
Other Income/(Expense)				
Equity in earnings/(losses) of unconsolidated affiliates	5	4	10	(11)
Other income, net	13	12	29	12
Interest expense	(151)	(105)	(299)	(208)
Total other expense	(133)	(89)	(260)	(207)
Income/(Loss) Before Income Taxes	397	665	(1,274)	2,972
Income tax expense/(benefit)	89	152	(247)	723
Net Income/(Loss)	$ 308	$ 513	$ (1,027)	$ 2,249
Less: Cumulative dividends attributable to Series A Preferred Stock	17	—	21	—
Net Income/(Loss) Available for Common Stockholders	$ 291	$ 513	$ (1,048)	$ 2,249
Income/(Loss) per Share				
Weighted average number of common shares outstanding — basic	231	237	230	240
Income/(Loss) per Weighted Average Common Share — Basic	$ 1.26	$ 2.16	$ (4.56)	$ 9.37
Weighted average number of common shares outstanding — diluted	232	237	230	240
Income/(Loss) per Weighted Average Common Share —Diluted	$ 1.25	$ 2.16	$ (4.56)	$ 9.37

See accompanying notes to condensed consolidated financial statements.

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

	Three months ended June 30,		Six months ended June 30,	
(In millions)	**2023**	**2022**	**2023**	**2022**
Net Income/(Loss)	$ 308	$ 513	$ (1,027)	$ 2,249
Other Comprehensive Income/(Loss)				
Foreign currency translation adjustments	6	(22)	8	(13)
Defined benefit plans	—	20	(1)	19
Other comprehensive income/(loss)	6	(2)	7	6
Comprehensive Income/(Loss)	$ 314	$ 511	$ (1,020)	$ 2,255

See accompanying notes to condensed consolidated financial statements.

NRG ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

(In millions, except share data and liquidation preference on preferred stock)	June 30, 2023 (Unaudited)	December 31, 2022 (Audited)
ASSETS		
Current Assets		
Cash and cash equivalents	$ 422	$ 430
Funds deposited by counterparties	365	1,708
Restricted cash	26	40
Accounts receivable, net	3,274	4,773
Inventory	686	751
Derivative instruments	4,423	7,886
Cash collateral paid in support of energy risk management activities	270	260
Prepayments and other current assets	580	383
Current assets - held-for-sale	75	—
Total current assets	10,121	16,231
Property, plant and equipment, net	1,706	1,692
Other Assets		
Equity investments in affiliates	139	133
Operating lease right-of-use assets, net	221	225
Goodwill	5,143	1,650
Customer relationships, net	2,446	943
Other intangible assets, net	1,897	1,189
Nuclear decommissioning trust fund	—	838
Derivative instruments	2,910	4,108
Deferred income taxes	2,711	1,881
Other non-current assets	536	251
Non-current assets - held-for-sale	1,161	5
Total other assets	17,164	11,223
Total Assets	$ 28,991	$ 29,146

(In millions, except share data and liquidation preference on preferred stock)	June 30, 2023 (Unaudited)	December 31, 2022 (Audited)
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities		
Current portion of long-term debt and finance leases	$ 1,319	$ 63
Current portion of operating lease liabilities	91	83
Accounts payable	2,107	3,643
Derivative instruments	3,832	6,195
Cash collateral received in support of energy risk management activities	365	1,708
Deferred revenue current	731	176
Accrued expenses and other current liabilities	1,395	1,110
Current liabilities - held-for-sale	36	4
Total current liabilities	9,876	12,982
Other Liabilities		
Long-term debt and finance leases	10,737	7,976
Non-current operating lease liabilities	165	180
Nuclear decommissioning reserve	—	340
Nuclear decommissioning trust liability	—	477
Derivative instruments	1,889	2,246
Deferred income taxes	130	134
Deferred revenue non-current	927	10
Other non-current liabilities	988	942
Non-current liabilities - held-for-sale	947	31
Total other liabilities	15,783	12,336
Total Liabilities	25,659	25,318
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock; 10,000,000 shares authorized; 650,000 Series A shares issued and outstanding at June 30, 2023 (liquidation preference $1,000); 0 shares issued and outstanding at December 31, 2022	650	—
Common stock; $0.01 par value; 500,000,000 shares authorized; 424,675,214 and 423,897,001 shares issued and 230,425,759 and 229,561,030 shares outstanding at June 30, 2023 and December 31, 2022, respectively	4	4
Additional paid-in-capital	8,504	8,457
Retained earnings	205	1,408
Treasury stock, at cost 194,249,455 and 194,335,971 shares at June 30, 2023 and December 31, 2022, respectively	(5,861)	(5,864)
Accumulated other comprehensive loss	(170)	(177)
Total Stockholders' Equity	3,332	3,828
Total Liabilities and Stockholders' Equity	$ 28,991	$ 29,146

See accompanying notes to condensed consolidated financial statements.

NRG ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Six months ended June 30,	
(In millions)	**2023**	**2022**
Cash Flows from Operating Activities		
Net (Loss)/Income	$ (1,027)	$ 2,249
Adjustments to reconcile net (loss)/income to cash (used)/provided by operating activities:		
Distributions from and equity in (earnings)/losses of unconsolidated affiliates	(9)	16
Depreciation and amortization	505	340
Accretion of asset retirement obligations	5	16
Provision for credit losses	80	51
Amortization of nuclear fuel	26	28
Amortization of financing costs and debt discounts	31	11
Amortization of in-the-money contracts and emissions allowances	112	128
Amortization of unearned equity compensation	61	14
Net gain on sale of assets and disposal of assets	(187)	(46)
Impairment losses	—	155
Changes in derivative instruments	1,515	(3,918)
Changes in current and deferred income taxes and liability for uncertain tax benefits	(282)	672
Changes in collateral deposits in support of risk management activities	(1,355)	3,121
Changes in nuclear decommissioning trust liability	2	(5)
Uplift securitization proceeds received from ERCOT	—	689
Changes in other working capital	(505)	(332)
Cash (used)/provided by operating activities	(1,028)	3,189
Cash Flows from Investing Activities		
Payments for acquisitions of businesses and assets, net of cash acquired	(2,498)	(53)
Capital expenditures	(324)	(150)
Net purchases of emission allowances	(25)	(19)
Investments in nuclear decommissioning trust fund securities	(185)	(271)
Proceeds from the sale of nuclear decommissioning trust fund securities	180	278
Proceeds from sales of assets, net of cash disposed	229	96
Proceeds from insurance recoveries for property, plant and equipment, net	121	—
Cash used by investing activities	(2,502)	(119)
Cash Flows from Financing Activities		
Proceeds from issuance of preferred stock, net of fees	635	—
Payments of dividends to common stockholders	(174)	(168)
Payments for share repurchase activity[(a)]	(16)	(366)
Net receipts from settlement of acquired derivatives that include financing elements	318	950
Net proceeds of Revolving Credit Facility	700	—
Proceeds from issuance of long-term debt	731	—
Payments of debt issuance costs	(22)	—
Repayments of long-term debt and finance leases	(10)	(2)
Cash provided by financing activities	2,162	414
Effect of exchange rate changes on cash and cash equivalents	3	—
Net (Decrease)/Increase in Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash	(1,365)	3,484
Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash at Beginning of Period	2,178	1,110
Cash and Cash Equivalents, Funds Deposited by Counterparties and Restricted Cash at End of Period	$ 813	$ 4,594

(a) Includes $(16) million and $(6) million of equivalent shares purchased in lieu of tax withholdings on equity compensation issuances during the six months ended June 30, 2023 and June 30, 2022, respectively

See accompanying notes to condensed consolidated financial statements.

NRG ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

(In millions)	Preferred Stock	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stock-holders' Equity
Balance at December 31, 2022	$ —	$ 4	$ 8,457	$ 1,408	$ (5,864)	$ (177)	$ 3,828
Net loss				(1,335)			(1,335)
Issuance of Series A Preferred Stock	650		(14)				636
Other comprehensive income						1	1
Equity-based awards activity, net[(a)]			38				38
Common stock dividends and dividend equivalents declared[(b)]				(88)			(88)
Balance at March 31, 2023	$ 650	$ 4	$ 8,481	$ (15)	$ (5,864)	$ (176)	$ 3,080
Net income				308			308
Issuance of Series A Preferred Stock			(1)				(1)
Other comprehensive income						6	6
Shares reissuance for ESPP			1		3		4
Equity-based awards activity, net[(a)]			23				23
Common stock dividends and dividend equivalents declared[(b)]				(88)			(88)
Balance at June 30, 2023	$ 650	$ 4	$ 8,504	$ 205	$ (5,861)	$ (170)	$ 3,332

(In millions)	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total Stock-holders' Equity
Balance at December 31, 2021	$ 4	$ 8,531	$ 464	$ (5,273)	$ (126)	$ 3,600
Net income			1,736			1,736
Other comprehensive income					8	8
Share repurchases				(187)		(187)
Equity-based awards activity, net[(a)]		2				2
Common stock dividends and dividend equivalents declared[(b)]			(86)			(86)
Adoption of ASU 2020-06		(100)	57			(43)
Balance at March 31, 2022	$ 4	$ 8,433	$ 2,171	$ (5,460)	$ (118)	$ 5,030
Net income			513			513
Other comprehensive loss					(2)	(2)
Shares reissuance for ESPP		1		2		3
Share repurchases				(168)		(168)
Equity-based awards activity, net		8				8
Common stock dividends and dividend equivalents declared[(b)]			(84)			(84)
Balance at June 30, 2022	$ 4	$ 8,442	$ 2,600	$ (5,626)	$ (120)	$ 5,300

(a) Includes $(8) million, $(8) million and $(6) million of equivalent shares purchased in lieu of tax withholding on equity compensation issuances for the quarters ended March 31, 2023, June 30, 2023 and March 31, 2022, respectively

(b) Dividends per common share were $0.3775 for the quarters ended June 30 and March 31, 2023 and $0.35 for the quarters ended June 30 and March 31, 2022

See accompanying notes to condensed consolidated financial statements.

Note 1 — Nature of Business and Basis of Presentation

General

NRG Energy, Inc., or NRG or the Company, is a leading energy, smart home and services 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 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 7.5 million residential consumers in addition to commercial, industrial, and wholesale customers, supported by approximately 16 GW of generation.

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, (ii) the Services businesses (iii) activity related to the Cottonwood facility, (iv) the remaining renewables activity, including the Company’s equity method investment in Ivanpah Master Holdings, LLC, and (v) activity related to the Company’s equity method investment for the Gladstone power plant in Australia;
- Vivint Smart Home; and
- Corporate activities.

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with the SEC's regulations for interim financial information and with the instructions to Form 10-Q. Accordingly, they do not include all of the information and notes required by generally accepted accounting principles for complete financial statements. The following notes should be read in conjunction with the accounting policies and other disclosures as set forth in the notes to the consolidated financial statements in the Company's 2022 Form 10-K. Interim results are not necessarily indicative of results for a full year.

In the opinion of management, the accompanying unaudited interim condensed consolidated financial statements contain all material adjustments consisting of normal and recurring accruals necessary to present fairly the Company's consolidated financial position as of June 30, 2023, and the results of operations, comprehensive income, cash flows and statements of stockholders' equity for the three and six months ended June 30, 2023 and 2022.

Use of Estimates

The preparation of financial statements in conformity with GAAP 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.

Reclassifications

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

Note 2 — Summary of Significant Accounting Policies

Vivint Smart Home Flex Pay

Under the Flex Pay plan (“Flex Pay”), offered by Vivint Smart Home, subscribers pay separately for smart home products and smart home and security services. The subscriber has the ability to pay for Vivint Smart Home products in the following three ways: (i) qualified subscribers may finance the purchase through third-party financing providers ("Consumer Financing Program" or “CFP”), (ii) Vivint Smart Home generally offers a limited number of subscribers 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) subscribers 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 subscribers 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, with Vivint Smart Home being responsible for between 2.6% and 100% of lost principal balances.

Due to the nature of these provisions, the Company records a derivative liability at its fair value when the Financing Provider originates loans to subscribers, 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 7, *Accounting for Derivative Instruments and Hedging Activities*.

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 subscriber contracts. These costs include installed products, commissions, other compensation and 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 period of benefit periodically and whenever events or circumstances indicate that the 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 cost of operations and selling, general and administrative costs on 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 subscriber contracts are expensed as incurred.

Other Balance Sheet Information

The following table presents the accumulated depreciation included in property, plant and equipment, net and accumulated amortization included in customer relationships, net and other intangible assets, net:

(In millions)	June 30, 2023	December 31, 2022
Property, plant and equipment accumulated depreciation	$ 1,351	$ 1,478
Customer relationships and other intangible assets accumulated amortization	2,394	2,112

Credit Losses

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 in the consolidated balance sheets. The Company accrues a provision 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 following table represents the activity in the allowance for credit losses for the three and six months ended June 30, 2023 and 2022:

	Three months ended June 30,		Six months ended June 30,	
(In millions)	**2023**	**2022**	**2023**	**2022**
Beginning balance	$ 121	$ 666	$ 133	$ 683
Acquired balance from Vivint Smart Home	—	—	22	—
Provision for credit losses	45	26	80	51
Write-offs	(66)	(71)	(144)	(121)
Recoveries collected	12	6	21	14
Other	8	—	8	—
Ending balance	$ 120	$ 627	$ 120	$ 627

Cash and Cash Equivalents, Funds Deposited by Counterparties and 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)	**June 30, 2023**	**December 31, 2022**
Cash and cash equivalents	$ 422	$ 430
Funds deposited by counterparties	365	1,708
Restricted cash	26	40
Cash and cash equivalents, funds deposited by counterparties and restricted cash shown in the statement of cash flows	$ 813	$ 2,178

Funds deposited by counterparties consist of cash held by the Company as a result of collateral posting obligations from its counterparties related to NRG's hedging program. The decrease in funds deposited by counterparties is driven by the significant decrease in forward positions as a result of decreases in natural gas and power prices compared to December 31, 2022. 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 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 consists primarily of funds held to satisfy the requirements of certain financing agreements and funds held within the Company's projects that are restricted in their uses.

Goodwill

The following table represents the changes in goodwill during the six months ended June 30, 2023:

(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home**	**Total**
Balance as of December 31, 2022	**$ 710**	**$ 723**	**$ 217**	**$ —**	**$ 1,650**
Goodwill resulting from the acquisition of Vivint Smart Home	—	—	—	3,492	3,492
Sale of business	—	(2)	—	—	(2)
Foreign currency translation adjustments	—	—	3	—	3
Balance as of June 30, 2023	**$ 710**	**$ 721**	**$ 220**	**$ 3,492**	**$ 5,143**

Recent Accounting Developments - Guidance Adopted in 2023

ASU 2021-08 — In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*, or ASU 2021-08, which requires that an entity recognize and measure contract assets and contract liabilities acquired in a business combination as if it had originated the contracts in accordance with ASC 606, Revenue from Contracts with Customers. As a result, an acquirer should recognize and measure the acquired contract assets and contract liabilities consistently with how they were recognized and measured in the acquiree's financial statements. The amendments per ASU 2021-08 apply only to contract assets and contract liabilities from contracts with customers, as defined in Topic 606, such as refund liabilities and upfront payments to customers. Assets and liabilities under related Topics, such as deferred costs under Subtopic 340-40, Other Assets and Deferred Costs — Contracts with Customers, are not within the scope of amendments per ASU 2021-08. The Company adopted ASU 2021-08 prospectively effective January 1, 2023 and applied the amended requirements to the acquisition of Vivint Smart Home.

Note 3 — Revenue Recognition

Vivint Smart Home Retail Revenue

Vivint Smart Home offers its subscribers combinations of smart home products and services, which together create an integrated smart home system that allows the Company's subscribers to monitor, control and protect their homes. As the products and services included in the subscriber'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 subscriber 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 subscriber'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 subscriber contain a material right to renew the contract, because the subscriber does not have to purchase the products upon renewal. Proceeds allocated to the material right are recognized over the period of the 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 subscribers are month-to-month from inception. Payment for Vivint Smart Home services is generally due in advance on a monthly basis. Product sales and other one-time fees are invoiced to subscribers 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.

Performance Obligations

As of June 30, 2023, estimated future fixed fee performance obligations are $742 million for the remaining six months of fiscal year 2023, and $1.3 billion, $949 million, $622 million, $336 million and $42 million for the fiscal years 2024, 2025, 2026, 2027 and 2028, 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 three and six months ended June 30, 2023 and 2022:

	Three months ended June 30, 2023					
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home**	**Corporate/ Eliminations**	**Total**
Retail revenue:						
Home[(a)]	*$ 1,563*	*$ 446*	*$ 406*	*$ 444*	*$ —*	*$ 2,859*
Business	*832*	*1,912*	*424*	*—*	*—*	*3,168*
Total retail revenue[(b)]	2,395	2,358	830	444	—	6,027
Energy revenue[(b)]	16	28	40	—	(1)	83
Capacity revenue[(b)]	—	49	—	—	—	49
Mark-to-market for economic hedging activities[(c)]	—	52	23	—	—	75
Contract amortization	—	(7)	(1)	—	—	(8)
Other revenue[(b)]	104	23	—	—	(5)	122
Total revenue	2,515	2,503	892	444	(6)	6,348
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	6	7	—	—	13
Less: Realized and unrealized ASC 815 revenue	14	99	7	—	(1)	119
Total revenue from contracts with customers	$ 2,501	$ 2,398	$ 878	$ 444	$ (5)	$ 6,216

(a) Home includes Services and Vivint Smart Home

(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	$ —	$ 16	$ —	$ —	$ —	$ 16
Energy revenue	—	13	(7)	—	(1)	5
Capacity revenue	—	17	—	—	—	17
Other revenue	14	1	(9)	—	—	6

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

(In millions)	Three months ended June 30, 2022 Texas	East	West/Services/ Other	Corporate/ Eliminations	Total
Retail revenue:					
Home[(a)]	*$ 1,655*	*$ 417*	*$ 543*	*$ (1)*	*$ 2,614*
Business	*910*	*2,983*	*444*	*—*	*4,337*
Total retail revenue	2,565	3,400	987	(1)	6,951
Energy revenue[(b)]	38	128	131	9	306
Capacity revenue[(b)]	—	89	1	—	90
Mark-to-market for economic hedging activities[(c)]	(1)	(106)	(38)	(3)	(148)
Contract amortization	—	(11)	(2)	—	(13)
Other revenue[(b)]	90	14	(3)	(5)	96
Total revenue	2,692	3,514	1,076	—	7,282
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	(4)	8	—	4
Less: Realized and unrealized ASC 815 revenue	(13)	(123)	(70)	7	(199)
Total revenue from contracts with customers	$ 2,705	$ 3,641	$ 1,138	$ (7)	$ 7,477

(a) Home includes Services

(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	Corporate/ Eliminations	Total
Energy revenue	$ —	$ (19)	$ (20)	$ 9	$ (30)
Capacity revenue	—	9	—	—	9
Other revenue	(12)	(7)	(12)	1	(30)

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

(In millions)	Six months ended June 30, 2023 Texas	East	West/Services/ Other	Vivint Smart Home[a]	Corporate/ Eliminations	Total
Retail revenue:						
Home[b]	*$ 2,799*	*$ 1,097*	*$ 1,031*	*$ 592*	*$ —*	*$ 5,519*
Business	*1,554*	*5,277*	*1,040*	*—*	*—*	*7,871*
Total retail revenue[c]	4,353	6,374	2,071	592	—	13,390
Energy revenue[c]	20	102	88	—	1	211
Capacity revenue[c]	—	90	1	—	—	91
Mark-to-market for economic hedging activities[d]	—	87	90	—	(11)	166
Contract amortization	—	(18)	(1)	—	—	(19)
Other revenue[c]	176	44	17	—	(6)	231
Total revenue	4,549	6,679	2,266	592	(16)	14,070
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	5	16	—	—	21
Less: Realized and unrealized ASC 815 revenue	12	212	104	—	(10)	318
Total revenue from contracts with customers	$ 4,537	$ 6,462	$ 2,146	$ 592	$ (6)	$ 13,731

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

(b) Home includes Services and Vivint Smart Home

(c) 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	$ —	$ 43	$ —	$ —	$ —	$ 43
Energy revenue	—	60	10	—	1	71
Capacity revenue	—	23	—	—	—	23
Other revenue	12	(1)	4	—	—	15

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

(In millions)	Six months ended June 30, 2022 Texas	East	West/Services/ Other	Corporate/ Eliminations	Total
Retail revenue:					
Home[(a)]	*$ 2,938*	*$ 996*	*$ 1,246*	*$ (1)*	*$ 5,179*
Business	*1,573*	*6,925*	*844*	*—*	*9,342*
Total retail revenue	4,511	7,921	2,090	(1)	14,521
Energy revenue[(b)]	53	332	185	14	584
Capacity revenue[(b)]	—	204	2	—	206
Mark-to-market for economic hedging activities[(c)]	(3)	(236)	(56)	14	(281)
Contract amortization	—	(20)	(2)	—	(22)
Other revenue[(b)]	151	28	1	(10)	170
Total revenue	4,712	8,229	2,220	17	15,178
Less: Revenues accounted for under topics other than ASC 606 and ASC 815	—	(13)	19	—	6
Less: Realized and unrealized ASC 815 revenue	(20)	(189)	(112)	27	(294)
Total revenue from contracts with customers	$ 4,732	$ 8,431	$ 2,313	$ (10)	$ 15,466

(a) Home includes Services

(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	Corporate/ Eliminations	Total
Energy revenue	$ —	$ 26	$ (40)	$ 13	$ (1)
Capacity revenue	—	22	—	—	22
Other revenue	(17)	(1)	(16)	—	(34)

(c) 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 June 30, 2023 and December 31, 2022:

(In millions)	June 30, 2023	December 31, 2022
Deferred customer acquisition costs	$ 422	$ 126
Accounts receivable, net - Contracts with customers	3,049	4,704
Accounts receivable, net - Accounted for under topics other than ASC 606	194	64
Accounts receivable, net - Affiliate	31	5
Total accounts receivable, net	$ 3,274	$ 4,773
Unbilled revenues (included within Accounts receivable, net - Contracts with customers)	$ 1,297	$ 1,952
Deferred revenues[(a)]	1,658	186

(a) Deferred revenues from contracts with customers as of June 30, 2023 and December 31, 2022 were approximately $1.6 billion and $175 million, respectively. The increase in deferred revenues is primarily due to acquisition of Vivint Smart Home

The revenue recognized from contracts with customers during the six months ended June 30, 2023 and 2022 relating to the deferred revenue balance at the beginning of each period was $168 million and $117 million, respectively. The change in deferred revenue balances recognized during the six months ended June 30, 2023 and 2022 was primarily due to the timing difference of when consideration was received and when the performance obligation was transferred. The revenue recognized from contracts with customers during the three months ended June 30, 2023 and 2022 relating to the deferred revenue balance at the beginning of each period was $310 million and $106 million, respectively. The change in deferred revenue balances recognized during the three months ended June 30, 2023 was primarily due to the acquisition of Vivint Smart Home.

Note 4 — Acquisitions and Dispositions

Acquisitions

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 brings 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, support and professional monitoring, enabling superior subscriber experiences and a complete end-to-end smart home experience. The acquisition accelerates 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 $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.

In February 2023, the Company increased its Revolving Credit Facility by $600 million to meet the additional liquidity requirements related to the acquisition. For further discussion, see Note 9, *Long-term Debt and Finance Leases*.

Acquisition costs of $2 million and $38 million for the three and six months ended June 30, 2023, 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 provisionally recorded at their estimated Acquisition Closing Date fair value. The initial accounting for the business combination is not complete because the evaluation necessary to assess the fair value of certain net assets acquired and the amount of goodwill to be recognized is still in process. The provisional amounts are subject to revision until the evaluations are completed to the extent that additional information is obtained about the facts and circumstances that existed as of the Acquisition Closing Date.

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 is provisionally allocated as follows:

		(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)]		3,492
Intangible assets, net[(b)]:		
Customer relationships		1,740
Technology		860
Trade name		160
Sales channel contract		10
Intangible assets, net		2,770
Deferred income taxes		381
Other non-current assets		14
Total other assets		6,692
Total Assets	$	7,071
Current Liabilities		
Current portion of long-term debt and finance leases	$	14
Current portion of operating lease liabilities		13
Accounts payable		109
Derivatives instruments		80
Deferred revenue current		517
Accrued expenses and other current liabilities		207
Total current liabilities		940
Other Liabilities		
Long-term debt and finance leases		2,572
Non-current operating lease liabilities		28
Derivatives instruments		32
Deferred income taxes		18
Deferred revenue non-current		835
Other non-current liabilities		23
Total other liabilities		3,508
Total Liabilities	$	4,448
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 is expected to be deductible for tax purposes

(b) The weighted average amortization period for total amortizable intangible assets is approximately ten years

Measurement Period Adjustments

The following measurement period adjustments were recognized during the quarter ended June 30, 2023:

(In millions)		**(Decrease)/Increase**
Goodwill	$	(200)
Intangible assets, net		270
Deferred income taxes		(70)
Net change in assets	$	—

The measurement period adjustments to the provisional amounts are primarily attributable to refinement of the underlying assumptions used to estimate the fair value of assets acquired as more information was obtained about facts and circumstances that existed as of the Acquisition Closing Date.

Fair Value Measurement of Intangible Assets

The fair values of intangible assets as of the Acquisition Closing Date were measured primarily based on significant inputs that are observable and unobservable in the market and thus represent Level 2 and Level 3 measurements, respectively. Significant inputs were as follows:

Customer relationships — Customer relationships, reflective of Vivint Smart Home's subscriber base, were valued using an excess earning method of the income approach, and is classified as Level 3. Under this approach, the Company estimated the present value of expected future cash flows resulting from existing subscriber relationships, considering attrition and charges for contributory assets (such as net working capital, fixed assets, workforce, trade name and technology) utilized in the business, discounted using a weighted average cost of capital of comparable companies. The subscriber relationships are amortized to depreciation and amortization, ratably based on discounted future cash flows. The weighted average amortization period is twelve years.

Technology – Developed technology was valued using a "relief from royalty" method of the income approach, and is classified as Level 3. Under this approach, the fair value was estimated to be the present value of royalties saved which assumed the value of the asset based on discounted cash flows of the amount that would be paid by a hypothetical market participant had they not owned the asset and instead licensed the asset from another company. The estimated cash flows from the developed technology considered the obsolescence factor and was discounted using a weighted average cost of capital of comparable companies. The developed technology is amortized to depreciation and amortization, ratably based on discounted future cash flows. The weighted average amortization period is five years.

Trade name — Trade name was valued using a "relief from royalty" method of the income approach, and is classified as Level 3. Under this approach, the fair value is estimated to be the present value of royalties saved which assumed the value of the asset based on discounted cash flows of the amount that would be paid by a hypothetical market participant had they not owned the asset and instead licensed the asset from another company. The estimated cash flows from the trade name considered the expected probable use of the asset and was discounted using a weighted average cost of capital of comparable companies. The trade name is amortized to depreciation and amortization, on a straight line basis, over an amortization period of ten years.

Fair Value Measurement of Acquired Vivint Smart Home Debt

The Company acquired $2.7 billion in aggregate principal of Vivint Smart Home's 2027 Senior Secured Notes, 2029 Senior notes and 2028 Senior Secured Term Loan (together, the "Acquired Vivint Smart Home Debt") which were recorded at fair value as of the Acquisition Closing Date. The difference between the fair value at the Acquisition Closing Date and the principal outstanding of the Acquired Vivint Smart Home Debt, of $152 million, is being amortized through interest expense over the remaining term of the debt. The Acquired Vivint Smart Home Debt are classified as Level 2 and were measured at fair value using observable market inputs based on interest rates at the Acquisition Closing Date. For additional discussion, see Note 9, *Long-term Debt and Finance Leases.*

Fair Value Measurement of Derivatives Liabilities

The derivative liabilities are recorded in connection with the contractual future payment obligations with the financing providers under Vivint Smart Home's Consumer Financing Program. The fair values of the derivatives liabilities as of the Acquisition Closing Date were 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 loss severity rates. These derivatives are priced using a credit valuation adjustment methodology, and are classified as Level 3. Changes to the fair value are recorded through other income, net in the Consolidated Statement of Operations. For additional discussion, see Note 7, *Accounting for Derivative Instruments and Hedging Activities*.

Supplemental Pro Forma Financial Information for the three and six months ended June 30, 2023 and 2022

The following table provides pro forma combined financial information of NRG and Vivint Smart Home, after giving effect to the Vivint Smart Home acquisition and related financing transactions as if they had occurred on January 1, 2022. The pro forma financial information has been prepared for illustrative and informational purposes only, and is not intended to project future operating results or be indicative of what the Company's financial performance would have been had the transactions occurred on the date acquired. No effect has been given to prospective operating synergies.

	Three months ended June 30,		Six months ended June 30,	
(In millions)	**2023**	**2022**	**2023**	**2022**
Total operating revenues	$ 6,348	$ 7,690	$ 14,356	$ 15,978
Net income/(loss)	342	466	(955)	2,018

Amounts above reflect certain pro forma adjustments that were directly attributable to the Vivint Smart Home acquisition. These adjustments include the following:

(i) Income statement effects of fair value adjustments based on the preliminary purchase price allocation including amortization of intangible assets, reversal of historical Vivint Smart Home amortization of capitalized contract costs and reversal of historical Vivint Smart Home other income recorded for the change in fair value of warrant derivative liabilities, as the warrants are assumed to be cashed out upon the Acquisition Closing Date.

(ii) One time expenses directly related to the acquisition.

(iii) Adjustments to reflect all acquisition and related transactions costs in the six months ended June 30, 2022.

(iv) Interest expense assumes the financing transactions directly attributable to the Vivint Smart Home acquisition occurred on January 1, 2022.

(v) Adjustments related to recording Vivint Smart Home's historical debt at Acquisition Closing Date fair value.

(vi) Adjustments to reflect the write-off of short-term deferred financing costs related to the bridge facility put in place for the acquisition prior to securing permanent financing during the six months ended June 30, 2022 period instead of the six months ended June 30, 2023 period.

(vii) Income tax effect of the acquisition accounting adjustments and financing adjustments (adjusted for permanents book/tax differences) based on combined blended federal/state tax rate for all periods presented.

Dispositions

Planned sale of the 44% equity interest in STP

On May 31, 2023, the Company entered into a definitive equity purchase agreement with Constellation Energy Generation ("Constellation") to sell its 44% equity interest in STP for $1.75 billion, subject to customary purchase price adjustments. The transaction is expected to close by the end of 2023 and is subject to regulatory approval by the NRC. The waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, expired in July 2023.

In July 2023, the City Public Service Board of San Antonio ("CPS") filed a lawsuit claiming the existence of a right of first refusal to the STP sale transaction (the "CPS Lawsuit"). Austin Energy intervened in the CPS Lawsuit claiming a similar right of first refusal. On July 31, 2023, CPS and Austin Energy jointly filed a motion with the NRC seeking to dismiss the pending License Transfer Application ("LTA") between NRG and Constellation, or to halt their review of the LTA pending resolution of the CPS lawsuit. NRG filed its answer to the CPS/Austin Energy motion on August 4, 2023.

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 initial proceeds of $212 million, subject to transaction fees of $3 million and certain indemnifications, resulting in a $199 million gain. As part of the transaction, NRG entered into an agreement to lease the land back for the purpose of operating the Astoria gas turbines. The lease agreement is expected to terminate by the end of the year after decommissioning is complete.

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.

Held-for-sale

As of June 30, 2023, the following is classified as held for sale in the Condensed Consolidated Balance Sheets, primarily related to the planned sale of STP, which is in the Texas segment:

		(In millions)
Inventory	$	63
Prepayments and other current assets		12
Current assets - held-for-sale	$	75
Property, plant and equipment, net	$	227
Intangible assets, net		12
Nuclear decommissioning trust fund		922
Non-current assets - held-for-sale	$	1,161
Total assets held-for-sale	$	1,236
Current liabilities - held-for-sale	$	36
Nuclear decommissioning reserve	$	336
Nuclear decommissioning trust liability		551
Other non-current liabilities		60
Non-current liabilities - held-for-sale	$	947
Total liabilities held-for-sale	$	983

The Company recorded income before income taxes from its 44% equity interest in STP as follows:

	Three months ended June 30,		Six months ended June 30,	
(In millions)	2023	2022	2023	2022
Income before income taxes[(a)]	$ 23	$ 121	$ 7	$ 156

(a) Excludes the impact of the Company's hedges at the portfolio level

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 amounts approximate fair values 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:

	June 30, 2023		December 31, 2022	
(In millions)	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Convertible Senior Notes	$ 575	$ 618	$ 575	$ 576
Other long-term debt, including current portion	11,535	10,563	7,523	6,432
Total long-term debt, including current portion[(a)]	$ 12,110	$ 11,181	$ 8,098	$ 7,008

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

The fair value of the Company's publicly-traded long-term debt and the Vivint Smart Home Senior Secured Term Loan are based on quoted market prices and are classified as Level 2 within the fair value hierarchy. The estimated fair value of the borrowing under the Revolving Credit Facility approximates the carrying value because the interest rates vary with market interest rates, and is classified as Level 3 within the fair value hierarchy. The following table presents the level within the fair value hierarchy for long-term debt, including current portion, as of June 30, 2023 and December 31, 2022:

	June 30, 2023		December 31, 2022	
(In millions)	**Level 2**	**Level 3**	**Level 2**	**Level 3**
Convertible Senior Notes	$ 618	$ —	$ 576	$ —
Other long-term debt, including current portion	9,863	700	6,432	—
Total long-term debt, including current portion	$ 10,481	$ 700	$ 7,008	$ —

Recurring Fair Value Measurements

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

The following tables present assets and liabilities measured and recorded at fair value on the Company's condensed consolidated balance sheets on a recurring basis and their level within the fair value hierarchy:

	June 30, 2023			
	Fair Value			
(In millions)	**Total**	**Level 1**	**Level 2**	**Level 3**
Investments in securities (classified within other current and non-current assets)	$ 19	$ —	$ 19	$ —
Nuclear trust fund investments (classified within non-current assets - held-for-sale):				
Cash and cash equivalents	21	21	—	—
U.S. government and federal agency obligations	90	88	2	—
Federal agency mortgage-backed securities	103	—	103	—
Commercial mortgage-backed securities	34	—	34	—
Corporate debt securities	116	—	116	—
Equity securities	464	464	—	—
Foreign government fixed income securities	1	—	1	—
Derivative assets:				
Foreign exchange contracts	8	—	8	—
Commodity contracts	7,301	1,225	4,564	1,512
Interest rate contracts	24	—	24	—
Measured using net asset value practical expedient:				
Equity securities — nuclear trust fund investments (classified within non-current assets - held-for-sale)	93			
Equity securities (classified within other non-current assets)	6			
Total assets	$ 8,280	$ 1,798	$ 4,871	$ 1,512
Derivative liabilities:				
Foreign exchange contracts	$ 6	$ —	$ 6	$ —
Commodity contracts	5,600	1,072	3,921	607
Consumer Financing Program	115	—	—	115
Total liabilities	$ 5,721	$ 1,072	$ 3,927	$ 722

(In millions)	December 31, 2022 Fair Value Total	Level 1	Level 2	Level 3
Investments in securities (classified within other current and non-current assets)	$ 19	$ —	$ 19	$ —
Nuclear trust fund investments:				
Cash and cash equivalents	15	15	—	—
U.S. government and federal agency obligations	86	84	2	—
Federal agency mortgage-backed securities	101	—	101	—
Commercial mortgage-backed securities	35	—	35	—
Corporate debt securities	114	—	114	—
Equity securities	403	403	—	—
Foreign government fixed income securities	1	—	1	—
Other trust fund investments (classified within other non-current assets):				
U.S. government and federal agency obligations	1	1	—	—
Derivative assets:				
Foreign exchange contracts	18	—	18	—
Commodity contracts	11,976	1,929	8,796	1,251
Measured using net asset value practical expedient:				
Equity securities — nuclear trust fund investments	83			
Equity securities (classified within other non-current assets)	6			
Total assets	$ 12,858	$ 2,432	$ 9,086	$ 1,251
Derivative liabilities:				
Foreign exchange contracts	$ 2	$ —	$ 2	$ —
Commodity contracts	8,439	1,244	6,449	746
Total liabilities	$ 8,441	$ 1,244	$ 6,451	$ 746

The following table reconciles, for the three and six months ended June 30, 2023 and 2022, the beginning and ending balances for financial instruments that are recognized at fair value in the condensed consolidated financial statements, using significant unobservable inputs, for commodity derivatives:

(In millions)	Fair Value Measurement Using Significant Unobservable Inputs (Level 3) Commodity Derivatives[a] Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Beginning balance	$ 471	$ 528	$ 505	$ 293
Total (losses)/gains realized/unrealized included in earnings	(86)	293	(177)	459
Purchases	99	6	140	29
Transfers into Level 3[b]	414	568	438	621
Transfers out of Level 3[b]	7	8	(1)	1
Ending balance	$ 905	$ 1,403	$ 905	$ 1,403
(Losses)/Gains for the period included in earnings attributable to the change in unrealized gains or losses relating to assets or liabilities still held as of period end	$ (76)	$ 297	$ (131)	$ 534

(a) Consists of derivative assets and liabilities, net, excluding derivatives 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 external broker quotes and are valued as of the end of the reporting period. All transfers in/out are with Level 2

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 three and six months ended June 30, 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:

	Fair Value Measurement Using Significant Unobservable Inputs (Level 3)	
	Consumer Financing Program	
(In millions)	Three months ended June 30, 2023	Six months ended June 30, 2023
Beginning balance	$ 111	$ —
Contractual obligations added from the acquisition of Vivint Smart Home	—	112
New contractual obligations	20	22
Settlements	(19)	(22)
Total losses included in earnings	3	3
Ending balance	$ 115	$ 115

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

Derivative Fair Value Measurements

A portion of NRG's contracts are exchange-traded contracts with readily available quoted market prices. A majority of NRG's contracts are non-exchange-traded contracts valued using prices provided by external sources, primarily price quotations available through brokers or over-the-counter and on-line exchanges. The remainder of the assets and liabilities represent 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 the observable market data with similar characteristics. As of June 30, 2023, contracts valued with prices provided by models and other valuation techniques make up 21% of derivative assets and 13% of derivative liabilities.

NRG's significant positions classified as Level 3 include physical and financial natural gas and power contracts executed in illiquid markets, as well as 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. 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 loss severity rates. These derivatives are priced quarterly using a credit valuation adjustment methodology.

The following tables quantify the significant, unobservable inputs used in developing the fair value of the Company's Level 3 positions as of June 30, 2023 and December 31, 2022:

	June 30, 2023						
	Fair Value				Input/Range		
(In millions)	Assets	Liabilities	Valuation Technique	Significant Unobservable Input	Low	High	Weighted Average
Natural Gas Contracts	$ 105	$ 123	Discounted Cash Flow	Forward Market Price (per MMBtu)	$ 1	$ 17	$ 4
Power Contracts	1,373	427	Discounted Cash Flow	Forward Market Price (per MWh)	1	263	47
FTRs	34	57	Discounted Cash Flow	Auction Prices (per MWh)	(23)	146	1
Consumer Financing Program	—	115	Discounted Cash Flow	Collateral Default Rates	1.51%	76.59%	5.86%
			Discounted Cash Flow	Collateral Prepayment Rates	2.00%	3.00%	2.64%
			Discounted Cash Flow	Loss Severity Rates	6.00%	36.00%	10.20%
	$ 1,512	$ 722					

	December 31, 2022							
	Fair Value				Input/Range			
(In millions)	Assets	Liabilities	Valuation Technique	Significant Unobservable Input	Low	High	Weighted Average	
Natural Gas Contracts	$ 340	$ 448	Discounted Cash Flow	Forward Market Price (per MMBtu)	$ 2	$ 48	$ 6	
Power Contracts	843	216	Discounted Cash Flow	Forward Market Price (per MWh)	3	431	48	
FTRs	68	82	Discounted Cash Flow	Auction Prices (per MWh)	(32)	610	0	
	$ 1,251	$ 746						

The following table provides sensitivity of fair value measurements to increases/(decreases) in significant, unobservable inputs as of June 30, 2023 and December 31, 2022:

Significant Unobservable Input	Position	Change In Input	Impact on Fair Value Measurement
Forward Market Price Natural Gas/Power	Buy	Increase/(Decrease)	Higher/(Lower)
Forward Market Price Natural Gas/Power	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)
Loss Severity Rates	n/a	Increase/(Decrease)	Higher/(Lower)

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 is calculated based on published default probabilities. As of June 30, 2023, the credit reserve resulted in a $8 million decrease primarily within cost of operations. As of December 31, 2022, the credit reserve resulted in a $9 million decrease primarily within cost of operations.

Concentration of Credit Risk

In addition to the credit risk discussion as disclosed in Note 2, *Summary of Significant Accounting Policies*, to the Company's 2022 Form 10-K, the following is a discussion of the concentration of credit risk for the Company's contractual obligations. 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, as well as retail customer credit risk through its retail load activities.

Counterparty Credit Risk

The Company's counterparty credit risk policies are disclosed in its 2022 Form 10-K. As of June 30, 2023, counterparty credit exposure, excluding credit exposure from RTOs, ISOs, registered commodity exchanges and certain long-term agreements, was $1.9 billion and NRG held collateral (cash and letters of credit) against those positions of $616 million, resulting in a net exposure of $1.3 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 59% of the Company's exposure before collateral is expected to roll off by the end of 2024. 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 by Industry Sector	**Net Exposure[a][b] (% of Total)**
Utilities, energy merchants, marketers and other	73%
Financial institutions	27
Total as of June 30, 2023	100%

Category by Counterparty Credit Quality	**Net Exposure [a][b] (% of Total)**
Investment grade	55%
Non-investment grade/non-rated	45
Total as of June 30, 2023	100%

(a) Counterparty credit exposure excludes uranium and 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 currently has exposure to one wholesale counterparty in excess of 10% of total net exposure as of June 30, 2023. 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 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 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 June 30, 2023, aggregate credit risk exposure managed by NRG to these counterparties was approximately $889 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 as well as through Vivint Smart Home, which serve both 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 non-payment 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 June 30, 2023, 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.

Note 6 — Nuclear Decommissioning Trust Fund

NRG's Nuclear Decommissioning Trust Fund assets, which are for the decommissioning of its 44% interest in STP, are comprised of securities classified as available-for-sale and recorded at fair value based on actively quoted market prices. NRG accounts for the Nuclear Decommissioning Trust Fund in accordance with ASC 980, *Regulated Operations*, because the Company's nuclear decommissioning activities are subject to approval by the PUCT with regulated rates that are designed to recover all decommissioning costs and that can be charged to and collected from the ratepayers per PUCT mandate. Since the Company is in compliance with PUCT rules and regulations regarding decommissioning trusts and the cost of decommissioning is the responsibility of the Texas ratepayers, not NRG, all realized and unrealized gains or losses (including other-than-temporary impairments) related to the Nuclear Decommissioning Trust Fund are recorded to the Nuclear Decommissioning Trust liability and are not included in net income or accumulated OCI, consistent with regulatory treatment. As of June 30, 2023, the trust liability is classified within non-current liabilities - held-for-sale on the Company's condensed consolidated balance sheet.

The following table summarizes the aggregate fair values and unrealized gains and losses for the securities held in the trust funds, as well as information about the contractual maturities of those securities. As of June 30, 2023, the trust funds are classified within non-current assets - held-for-sale on the Company's condensed consolidated balance sheet.

	As of June 30, 2023				As of December 31, 2022			
(In millions, except maturities)	**Fair Value**	**Unrealized Gains**	**Unrealized Losses**	**Weighted-average Maturities (In years)**	**Fair Value**	**Unrealized Gains**	**Unrealized Losses**	**Weighted-average Maturities (In years)**
Cash and cash equivalents	$ 21	$ —	$ —	—	$ 15	$ —	$ —	—
U.S. government and federal agency obligations	90	1	5	12	86	—	5	11
Federal agency mortgage-backed securities	103	—	8	25	101	—	11	26
Commercial mortgage-backed securities	34	—	4	29	35	—	4	30
Corporate debt securities	116	—	10	12	114	—	13	12
Equity securities	557	408	—	—	486	346	3	—
Foreign government fixed income securities	1	—	—	20	1	—	—	17
Total	$ 922	$ 409	$ 27		$ 838	$ 346	$ 36	

The following table summarizes proceeds from sales of available-for-sale securities held in the trust funds and the related realized gains and losses from these sales. The cost of securities sold is determined on the specific identification method.

	Six months ended June 30,	
(In millions)	**2023**	**2022**
Realized gains	$ 6	$ 8
Realized losses	(10)	(11)
Proceeds from sale of securities	180	278

Note 7 — Accounting for Derivative Instruments and Hedging Activities

Energy-Related Commodities

As of June 30, 2023, NRG had energy-related derivative instruments extending through 2036. The Company marks these derivatives to market through the statement of operations. NRG has executed energy-related contracts extending through 2036 that qualified for the NPNS exception and were therefore exempt from fair value accounting treatment.

Interest Rate Swaps

NRG is exposed to changes in interest rate through the Company's issuance of variable rate debt. In order to manage the Company's interest rate risk, NRG enters into interest rate swap agreements. In the first quarter of 2023, the Company entered into $1.0 billion of interest rate swaps through 2027 to hedge the floating rate on the Term Loan acquired with the Vivint Smart Home acquisition. Additionally, the Company has entered into interest rate swaps to hedge the floating rate on the Revolving Credit Facility extending through 2024, with $400 million outstanding as of June 30, 2023.

Foreign Exchange Contracts

NRG is exposed to changes in foreign currency primarily associated with the purchase of USD denominated natural gas for its Canadian business. In order to manage the Company's foreign exchange risk, NRG entered into foreign exchange contracts. As of June 30, 2023, NRG had foreign exchange contracts extending through 2027. The Company marks these derivatives to market through the statement of operations.

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 subscriber. 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 subscriber; and
- Vivint Smart Home pays transactional fees associated with subscriber 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 loss severity rates. These derivatives are priced quarterly using a credit valuation adjustment methodology. 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 NRG's open derivative transactions broken out by category, excluding those derivatives that qualified for the NPNS exception, as of June 30, 2023 and December 31, 2022. 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.

		Total Volume (In millions)	
Category	**Units**	**June 30, 2023**	**December 31, 2022**
Emissions	Short Ton	—	1
Renewable Energy Certificates	Certificates	13	15
Coal	Short Ton	12	11
Natural Gas	MMBtu	804	422
Oil	Barrels	—	1
Power	MWh	210	192
Consumer Financing Program	Dollars	942	—
Foreign Exchange	Dollars	590	569
Interest	Dollars	1,400	—

Fair Value of Derivative Instruments

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

	Fair Value			
	Derivative Assets		Derivative Liabilities	
(In millions)	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022
Derivatives Not Designated as Cash Flow or Fair Value Hedges:				
Interest rate contracts - current	$ 20	$ —	$ —	$ —
Interest rate contracts - long-term	4	—	—	—
Foreign exchange contracts - current	5	11	3	1
Foreign exchange contracts - long-term	3	7	3	1
Consumer Financing Program - short-term	—	—	78	—
Consumer Financing Program - long-term	—	—	37	—
Commodity contracts - current	4,398	7,875	3,751	6,194
Commodity contracts - long-term	2,903	4,101	1,849	2,245
Total Derivatives Not Designated as Cash Flow or Fair Value Hedges	$ 7,333	$ 11,994	$ 5,721	$ 8,441

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 of derivatives by counterparty master agreement level and collateral received or paid:

	Gross Amounts Not Offset in the Statement of Financial Position			
(In millions)	Gross Amounts of Recognized Assets / Liabilities	Derivative Instruments	Cash Collateral (Held) /Posted	Net Amount
As of June 30, 2023				
Foreign exchange contracts:				
Derivative assets	$ 8	$ (5)	$ —	$ 3
Derivative liabilities	(6)	5	—	(1)
Total foreign exchange contracts	$ 2	$ —	$ —	$ 2
Commodity contracts:				
Derivative assets	$ 7,301	$ (5,344)	$ (340)	$ 1,617
Derivative liabilities	(5,600)	5,344	5	(251)
Total commodity contracts	$ 1,701	$ —	$ (335)	$ 1,366
Consumer Financing Program:				
Derivative liabilities	$ (115)	$ —	$ —	$ (115)
Interest rate contracts:				
Derivative assets	$ 24	$ —	$ —	$ 24
Total derivative instruments	$ 1,612	$ —	$ (335)	$ 1,277

(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, 2022				
Foreign exchange contracts:				
Derivative assets	$ 18	$ (2)	$ —	$ 16
Derivative liabilities	(2)	2	—	—
Total foreign exchange contracts	$ 16	$ —	$ —	$ 16
Commodity contracts:				
Derivative assets	$ 11,976	$ (7,897)	$ (1,659)	$ 2,420
Derivative liabilities	(8,439)	7,897	20	(522)
Total commodity contracts	$ 3,537	$ —	$ (1,639)	$ 1,898
Total derivative instruments	$ 3,553	$ —	$ (1,639)	$ 1,914

Impact of Derivative Instruments on the Statements of Operations

Unrealized gains and losses associated with changes in the fair value of derivative instruments not accounted for as cash flow and fair value hedges are reflected in current period results of operations.

The following table summarizes 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 are included within revenues and cost of operations. The effect of the interest rate contracts are included within interest expense. The effect of the Consumer Financing Program is included in other income, net.

(In millions)	Three months ended June 30,		Six months ended June 30,	
Unrealized mark-to-market results	2023	2022	2023	2022
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	$ (151)	$ (197)	$ (997)	$ (605)
Reversal of acquired loss/(gain) positions related to economic hedges	35	48	10	(12)
Net unrealized gains/(losses) on open positions related to economic hedges	180	868	(893)	3,613
Total unrealized mark-to-market gains/(losses) for economic hedging activities	64	719	(1,880)	2,996
Reversal of previously recognized unrealized losses on settled positions related to trading activity	10	8	11	9
Net unrealized gains/(losses) on open positions related to trading activity	3	(10)	14	(25)
Total unrealized mark-to-market gains/(losses) for trading activity	13	(2)	25	(16)
Total unrealized gains/(losses) - commodities and foreign exchange	$ 77	$ 717	$ (1,855)	$ 2,980

(In millions)	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Unrealized gains/(losses) included in revenues - commodities	$ 88	$ (150)	$ 191	$ (297)
Unrealized gains/(losses) included in cost of operations - commodities	5	858	(2,032)	3,272
Unrealized (losses)/gains included in cost of operations - foreign exchange	(16)	9	(14)	5
Total impact to statement of operations - commodities and foreign exchange	$ 77	$ 717	$ (1,855)	$ 2,980
Total impact to statement of operations - consumer financing program	$ (3)	$ —	$ (3)	$ —
Total impact to statement of operations - interest rate contracts	$ 29	$ —	$ 24	$ —

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.

For the six months ended June 30, 2023, the $893 million unrealized loss from open economic hedge positions was primarily the result of a decrease in value of forward positions as a result of decreases in natural gas and power prices in the East and West.

For the six months ended June 30, 2022, the $3.6 billion unrealized gain from open economic hedge positions was primarily due to increases 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 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 all contracts with adequate assurance clauses that are in a net liability position as of June 30, 2023 was $743 million. The Company is also party to certain marginable agreements under which it has net liability position, but the counterparty has not called for the collateral due, which was approximately $91 million as of June 30, 2023. In the event of a downgrade in the Company's credit rating and if called for by the counterparty, $15 million of additional collateral would be required for all contracts with credit rating contingent features as of June 30, 2023.

See Note 5, *Fair Value of Financial Instruments*, for discussion regarding concentration of credit risk.

Note 8 — Impairments

2022 Impairment Losses

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 in 2023. 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 second quarter of 2022 in the East segment on the PJM generating assets and Midwest Generation goodwill, respectively.

Note 9 — Long-term Debt and Finance Leases

Long-term debt and finance leases consisted of the following:

(In millions, except rates)	June 30, 2023	December 31, 2022	Interest rate %
Recourse debt:			
Senior Notes, due 2027	$ 375	$ 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 2031	1,030	1,030	3.625
Senior Notes, due 2032	1,100	1,100	3.875
Convertible Senior Notes, due 2048[(a)]	575	575	2.750
Senior Secured First Lien Notes, due 2024	600	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	—	7.000
Revolving Credit Facility	700	—	various
Tax-exempt bonds	466	466	1.250 - 4.750
Subtotal recourse debt	9,540	8,100	
Non-recourse debt:			
Vivint Smart Home Senior Secured Notes, due 2027	600	—	6.750
Vivint Smart Home Senior Notes, due 2029	800	—	5.750
Vivint Smart Home Senior Secured Term Loan, due 2028	1,326	—	various
Subtotal all Vivint Smart Home non-recourse debt	2,726	—	
Subtotal long-term debt (including current maturities)	12,266	8,100	
Finance leases	19	11	various
Subtotal long-term debt and finance leases (including current maturities)	12,285	8,111	
Less current maturities	(1,319)	(63)	
Less debt issuance costs	(73)	(70)	
Discounts	(156)	(2)	
Total long-term debt and finance leases	$ 10,737	$ 7,976	

(a) As of the ex-dividend date of July 31, 2023, the Convertible Senior Notes were convertible at a price of $42.17, which is equivalent to a conversion rate of approximately 23.7112 shares of common stock per $1,000 principal amount

Recourse Debt

Issuance of 2033 Senior Secured First Lien Notes

On March 9, 2023, the Company issued $740 million of aggregate principal amount of 7.000% senior secured first lien notes due 2033 (the "2033 Senior Secured First Lien Notes"). The 2033 Senior Secured First Lien Notes are senior secured obligations of NRG and are guaranteed by certain of its subsidiaries that guarantee indebtedness under the Revolving Credit Facility. The 2033 Senior Secured First Lien Notes are secured by a first priority security interest in the same collateral that is pledged for the benefit of the lenders under the Revolving Credit Facility, which collateral consists of a substantial portion of the property and assets owned by the Company and the guarantors. The collateral securing the 2033 Senior Secured First Lien Notes will be released at the Company's request if the senior unsecured long-term debt securities of the Company are rated investment grade by any two of the three rating agencies, subject to reversion if such rating agencies withdraw such investment grade rating or downgrade such rating below investment grade. Interest is paid semi-annually beginning on September 15, 2023 until the maturity date of March 15, 2033. The proceeds of the 2033 Senior Secured First Lien Notes, along with cash on hand and proceeds from certain other financings, were used to fund the acquisition of Vivint Smart Home.

2048 Convertible Senior Notes

As of June 30, 2023, the Convertible Senior Notes were convertible, under certain circumstances, into cash or a combination of cash and the Company's common stock at a price of $42.57 per common share, which is equivalent to a conversion rate of approximately 23.4925 shares of common stock per $1,000 principal amount of Convertible Senior Notes. The net carrying amounts of the Convertible Senior Notes as of June 30, 2023 and December 31, 2022 were $571 million and $570 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 under certain circumstances. Prior to the close of business on the business day immediately preceding December 1, 2024, the Convertible Senior Notes will be convertible only upon the occurrence of certain events and during certain periods, and thereafter 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

The following table details the interest expense recorded in connection with the Convertible Senior Notes, due 2048:

	Three months ended June 30,		Six months ended June 30,	
($ In millions)	**2023**	**2022**	**2023**	**2022**
Contractual interest expense	$ 4	$ 4	$ 8	$ 8
Amortization of deferred finance costs	—	1	1	1
Total	$ 4	$ 5	$ 9	$ 9
Effective Interest Rate	0.75%	0.76%	1.52%	1.52%

Revolving Credit Facility

On February 14, 2023, the Company amended its Revolving Credit Facility to: (i) increase the existing revolving commitments thereunder by $600 million, (ii) extend the maturity date of a portion of the revolving commitments thereunder to February 14, 2028, (iii) transition the benchmark rate applicable to revolving loans from LIBOR to SOFR and (iv) make certain other amendments to the terms of the Revolving Credit Facility for purposes of, among other things, providing additional flexibility. For further discussion, see Note 13, *Long-term Debt and Finance Leases,* of the Company's 2022 Form 10-K.

On March 13, 2023, the Company further amended its Revolving Credit Facility to increase the existing revolving commitments by an additional $45 million. As of June 30, 2023, there were outstanding borrowings of $700 million and there were $823 million in letters of credit issued under the Revolving Credit Facility. As of July 31, 2023, there were outstanding borrowings of $700 million and $879 million in letters of credit issued under the Revolving Credit Facility.

Bilateral Letter of Credit Facilities

On May 19, 2023 and May 30, 2023, the Company increased the size of its bilateral letter of credit facilities by $25 million and $100 million, respectively, to provide additional liquidity and to allow for the issuance of up to $800 million of letters of credit. These facilities are uncommitted. As of June 30, 2023, $589 million was issued under these facilities.

Receivables Securitization Facilities

On June 22, 2023, 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 21, 2024, (ii) increase the aggregate commitments from $1.0 billion to $1.4 billion (adjusted seasonally) and (iii) add a new originator. As of June 30, 2023, there were no outstanding borrowings and there were $842 million in letters of credit issued.

In addition, in connection with the amendments to the Receivables Facility, on June 22, 2023, the Company and the originators thereunder renewed the existing uncommitted Repurchase Facility. Such renewal, among other things, extended the maturity date to June 21, 2024 and joined an additional originator to the Repurchase Facility. As of June 30, 2023, there were no outstanding borrowings.

For further information on the above facilities, see Note 13, *Long-term Debt and Finance Leases*, of the Company's 2022 Form 10-K.

Dunkirk Bonds

On April 3, 2023, NRG remarketed $59 million in aggregate principal amount of 4.25% tax-exempt refinancing bonds of the Chautauqua County Capital Resource Corporation (the "Dunkirk Bonds"). The Dunkirk Bonds are guaranteed on a first-priority basis by each of NRG's current and future subsidiaries that guarantee indebtedness under the Revolving Credit Facility. The Dunkirk Bonds are secured by a first priority security interest in the same collateral that is pledged for the benefit of the lenders under the Revolving Credit Facility, which consists of a substantial portion of the property and assets owned by NRG and the guarantors. The collateral securing the Dunkirk Bonds will, at the request of NRG, be released if NRG satisfies certain conditions, including receipt of an investment grade rating on its senior, unsecured debt securities from two out of the three rating agencies, subject to reversion if those rating agencies withdraw their investment grade rating of the Dunkirk Bonds or any of NRG's senior, unsecured debt securities or downgrade such ratings below investment grade. The Dunkirk Bonds are subject to mandatory tender and purchase on April 3, 2028 and have a final maturity date of April 1, 2042.

Non-recourse Debt

The following are descriptions of certain indebtedness of NRG's subsidiaries. All of NRG's non-recourse debt is secured by the assets in the subsidiaries as further described below.

Acquired Vivint Smart Home Debt

On March 10, 2023, in connection with the Vivint Smart Home acquisition, Vivint Smart Home's indirect wholly owned subsidiary, APX Group, Inc. ("APX"), retained its 6.750% senior secured notes due 2027, 5.750% senior notes due 2029, senior secured term loan credit agreement and senior secured revolving credit facility.

Vivint Smart Home 2027 Senior Secured Notes

Vivint Smart Home has outstanding $600 million aggregate principal amount of 6.750% senior secured notes due 2027 (the "Vivint Smart Home 2027 Senior Secured Notes"). The Vivint Smart Home 2027 Senior Secured Notes are senior secured obligations of APX and are guaranteed by APX Group Holdings, Inc., each of APX's existing and future wholly owned U.S. restricted subsidiaries (subject to customary exclusions and qualifications) and Vivint Smart Home. Interest on the Vivint Smart Home 2027 Senior Secured Notes is paid semi-annually in arrears on February 15 and August 15 until the maturity date of February 15, 2027.

Vivint Smart Home 2029 Senior Notes

Vivint Smart Home has outstanding $800 million aggregate principal amount of 5.750% senior notes due 2029 (the "Vivint Smart Home 2029 Senior Notes"). The Vivint Smart Home 2029 Senior Notes are senior unsecured obligations of APX and are guaranteed by APX Group Holdings, Inc., each of APX's existing and future wholly owned U.S. restricted subsidiaries (subject to customary exclusions and qualifications) and Vivint Smart Home. Interest on the Vivint Smart Home 2029 Senior Notes is paid semi-annually in arrears on January 15 and July 15 until the maturity date of July 15, 2029.

Vivint Smart Home Senior Secured Credit Facilities

The Vivint Smart Home senior secured credit agreement (the “Vivint Smart Home Credit Agreement”) provides for (i) a term loan facility in an aggregate principal amount of $1.4 billion (the “Vivint Smart Home Term Loan Facility”, and the loans thereunder, the “Vivint Smart Home Term Loans”) and (ii) a revolving credit facility in an aggregate principal amount of $370 million (the “Vivint Smart Home Revolving Credit Facility,” and the loans thereunder, the “Vivint Smart Home Revolving Loans”).

All of APX’s obligations under the Vivint Smart Home Credit Agreement are guaranteed by APX Group Holdings, Inc. and each of APX’s existing and future wholly-owned U.S. restricted subsidiaries (subject to customary exclusions and qualifications). The obligations under the Vivint Smart Home Credit Agreement are secured by a first priority perfected security interest in (1) substantially all of the present and future tangible and intangible assets of APX, and the guarantors, including without limitation equipment, subscriber contracts and communication paths, intellectual property, general intangibles, investment property, material intercompany notes and proceeds of the foregoing, subject to permitted liens and other customary exceptions, (2) substantially all personal property of APX and the guarantors consisting of accounts receivable arising from the sale of inventory and other goods and services (including related contracts and contract rights, inventory, cash, deposit accounts, other bank accounts and securities accounts), inventory and intangible assets to the extent attached to the foregoing books and records of APX and the guarantors, and the proceeds thereof, subject to permitted liens and other customary exceptions, in each case held by APX and the guarantors and (3) a pledge of all of the capital stock of APX, each of its subsidiary guarantors and each restricted subsidiary of APX and its subsidiary guarantors, in each case other than certain excluded assets and subject to the limitations and exclusions provided in the applicable collateral documents.

The Vivint Smart Home Credit Agreement contains customary covenants, which, among other things, require APX to maintain a maximum first lien net leverage ratio when amounts outstanding under the Vivint Smart Home Revolving Facility exceed a certain threshold and restrict, subject to certain exceptions, APX and its restricted subsidiaries' ability to:

- incur or guarantee additional debt or issue disqualified stock or preferred stock;
- pay dividends and make other distributions on, or redeem or repurchase, capital stock;
- make certain investments;
- incur certain liens;
- enter into transactions with affiliates;
- merge or consolidate;
- materially change the nature of their business;
- enter into agreements that restrict the ability of restricted subsidiaries to make dividends or other payments to APX or grant liens on their assets;
- designate restricted subsidiaries as unrestricted subsidiaries;
- amend, prepay, redeem or purchase certain material contractually subordinated debt; and
- transfer or sell certain assets.

On June 9, 2023, Vivint Smart Home entered into an amendment to the Vivint Smart Home Credit Agreement which transitioned the benchmark rate applicable to the Vivint Smart Home Term Loans and the Vivint Smart Home Revolving Loans from LIBOR to SOFR. As of June 30, 2023, the aggregate outstanding principal amount of the Vivint Term Loans was $1.3 billion. As of June 30, 2023, Vivint Smart Home had $10 million in letters of credit issued under the Vivint Smart Home Revolving Credit Facility and no outstanding borrowings.

Note 10 — Investments Accounted for Using the Equity Method and Variable Interest Entities, or VIEs

Entities that are not Consolidated

NRG accounts for the Company's significant investments using the equity method of accounting. NRG's carrying value of equity investments can be impacted by a number of elements including impairments and movements in foreign currency exchange rates. During 2022, the equity method of accounting for Ivanpah was suspended based on losses generated by the project, including the impact of debt service and depreciation.

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 13, *Long-term Debt and Finance Leases,* to the Company's 2022 Form 10-K.

The summarized financial information for the Company's consolidated VIE consisted of the following:

(In millions)	June 30, 2023	December 31, 2022
Accounts receivable and Other current assets	$ 1,256	$ 2,108
Current liabilities	152	152
Net assets	$ 1,104	$ 1,956

Note 11 — Changes in Capital Structure

As of June 30, 2023 and December 31, 2022, 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 stock issued and outstanding:

	Preferred	Common		
	Issued and Outstanding	Issued	Treasury	Outstanding
Balance as of December 31, 2022	—	423,897,001	(194,335,971)	229,561,030
Shares issued under LTIPs	—	778,213	—	778,213
Shares issued under ESPP	—	—	86,516	86,516
Issuance of Series A Preferred Stock	650,000	—	—	—
Balance as of June 30, 2023	650,000	424,675,214	(194,249,455)	230,425,759
Shares issued under LTIPs	—	13,812	—	13,812
Shares repurchased	—	—	(1,322,141)	(1,322,141)
Balance as of July 31, 2023	650,000	424,689,026	(195,571,596)	229,117,430

Common Stock

Share Repurchases

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. During July 2023, the Company purchased 1,322,141 shares for $50 million at an average price of $37.82 under the $2.7 billion authorization.

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. On April 27, 2023, NRG stockholders approved the adoption of the Amended and Restated Employee Stock Purchase Plan, effective April 1, 2023, which included a reduction in the price at which eligible employees may purchase shares of NRG common stock from 95% to 90% of the fair market value of the shares on the applicable date. NRG stockholders also approved an increase of 4,400,000 shares available for the issuance under the ESPP.

NRG Common Stock Dividends

During the first quarter of 2023, NRG increased the annual dividend to $1.51 from $1.40 per share and expects to target an annual dividend growth rate of 7%-9% per share in subsequent years. A quarterly dividend of $0.3775 per share was paid on the Company's common stock during the three months ended June 30, 2023. On July 17, 2023, NRG declared a quarterly dividend on the Company's common stock of $0.3775 per share, payable on August 15, 2023 to stockholders of record as of August 1, 2023.

The Company's common stock dividends are subject to available capital, market conditions, and compliance with associated laws, regulations and other contractual obligations.

Preferred Stock

Series A Preferred Stock

On March 9, 2023, the Company issued 650,000 shares of 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock ("Series A 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 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. The Series A Preferred Stock has a liquidation preference of $1,000 per share, plus accumulated but unpaid dividends. Cumulative cash dividends on the Series A Preferred Stock are payable semiannually, in arrears, on each March 15 and September 15, commencing on September 15, 2023, when, as and if declared by the board of directors.

Note 12 — 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 period are weighted for the portion of the period 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. The relative performance stock units, non-vested restricted stock units, and non-qualified stock options 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 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 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. For the three and six months ended June 30, 2023 and 2022, there was no dilutive effect for the Convertible Senior Notes since there were no potential share settlements for the periods.

NRG's basic and diluted income/(loss) per share is shown in the following table:

	Three months ended June 30,		Six months ended June 30,	
(In millions, except per share data)	**2023**	**2022**	**2023**	**2022**
Basic income/(loss) per share:				
Net income/(loss)	$ 308	$ 513	$ (1,027)	$ 2,249
Less: Cumulative dividends attributable to Series A Preferred Stock	17	—	21	—
Net income/(loss) available for common stockholders	$ 291	$ 513	$ (1,048)	$ 2,249
Weighted average number of common shares outstanding - basic	231	237	230	240
Income/(loss) per weighted average common share — basic	$ 1.26	$ 2.16	$ (4.56)	$ 9.37
Diluted income/(loss) per share:				
Net income/(loss)	$ 308	$ 513	$ (1,027)	$ 2,249
Less: Cumulative dividends attributable to Series A Preferred Stock	17	—	21	—
Net income/(loss) available for common stockholders	$ 291	$ 513	$ (1,048)	$ 2,249
Weighted average number of common shares outstanding - basic	231	237	230	240
Incremental shares attributable to the issuance of equity compensation (treasury stock method)	1	—	—	—
Weighted average number of common shares outstanding - dilutive	232	237	230	240
Income/(loss) per weighted average common share — diluted	$ 1.25	$ 2.16	$ (4.56)	$ 9.37

The following table summarizes the Company's outstanding equity instruments that are anti-dilutive and were not included in the computation of the Company's diluted income/(loss) per share:

	Three months ended June 30,		Six months ended June 30,	
(In millions of shares)	**2023**	**2022**	**2023**	**2022**
Equity compensation plans	1	—	7	—

Note 13 — Segment Reporting

The Company's segment structure reflects how management currently makes financial decisions and allocates resources. The Company manages its operations based on the combined results of the retail and wholesale generation businesses with a geographical focus. The acquired operations from the Vivint Smart Home acquisition are reported within the Vivint Smart Home segment.

NRG's chief operating decision maker, its chief executive officer, evaluates the performance of the Company's segments based on operational measures including adjusted earnings before interest, taxes, depreciation and amortization, or Adjusted EBITDA, free cash flow and allocation of capital, as well as net income/(loss). 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*, to the Company's 2022 Form 10-K.

	Three months ended June 30, 2023						
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home**	**Corporate**	**Eliminations**	**Total**
Revenue	$ 2,515	$ 2,503	$ 892	$ 444	$ —	$ (6)	$ 6,348
Depreciation and amortization	73	30	23	180	9	—	315
Gain on sale of assets	—	3	—	—	—	—	3
Equity in earnings of unconsolidated affiliates	—	—	5	—	—	—	5
Income/(loss) before income taxes	785	(100)	(128)	(23)	(137)	—	397
Net income/(loss)	**$ 785**	**$ (101)**	**$ (129)**	**$ (23)**	**$ (224)**	**$ —**	**$ 308**

	Three months ended June 30, 2022					
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Corporate**	**Eliminations**	**Total**
Revenue	$ 2,692	$ 3,514	$ 1,076	$ —	$ —	$ 7,282
Depreciation and amortization	77	50	22	8	—	157
Impairment losses	—	155	—	—	—	155
(Loss)/gain on sale of assets	(12)	—	44	—	—	32
Equity in earnings of unconsolidated affiliates	—	—	4	—	—	4
Income/(loss) before income taxes	762	(13)	35	(119)	—	665
Net income/(loss)	**$ 762**	**$ (12)**	**$ 24**	**$ (261)**	**$ —**	**$ 513**

	Six months ended June 30, 2023						
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home[(a)]**	**Corporate**	**Eliminations**	**Total**
Revenue	$ 4,549	$ 6,679	$ 2,266	$ 592	$ —	$ (16)	$ 14,070
Depreciation and amortization	148	60	47	232	18	—	505
Gain on sale of assets	—	202	—	—	—	—	202
Equity in earnings of unconsolidated affiliates	—	—	10	—	—	—	10
Income/(loss) before income taxes	1,069	(1,502)	(479)	(62)	(300)	—	(1,274)
Net income/(loss)	**$ 1,069**	**$ (1,503)**	**$ (433)**	**$ (62)**	**$ (98)**	**$ —**	**$ (1,027)**

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

	Six months ended June 30, 2022					
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Corporate**	**Eliminations**	**Total**
Revenue	$ 4,712	$ 8,229	$ 2,220	$ —	$ 17	$ 15,178
Depreciation and amortization	154	127	43	16	—	340
Impairment losses	—	155	—	—	—	155
(Loss)/gain on sale of assets	(12)	—	43	(2)	—	29
Equity in losses of unconsolidated affiliates	(1)	—	(10)	—	—	(11)
Income/(loss) before income taxes	1,533	1,525	164	(250)	—	2,972
Net income/(loss)	**$ 1,533**	**$ 1,526**	**$ 154**	**$ (964)**	**$ —**	**$ 2,249**

Note 14 — Income Taxes

Effective Income Tax Rate

The income tax provision consisted of the following:

(In millions, except rates)	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Income/(Loss) before income taxes	$ 397	$ 665	$ (1,274)	$ 2,972
Income tax expense/(benefit)	89	152	(247)	723
Effective income tax rate	22.4 %	22.9 %	19.4 %	24.3 %

For the six months ended June 30, 2023, the effective tax rate was lower than the statutory rate of 21%, primarily due to current state tax expense which has an inverted effect and reduces the effective tax rate when applied to year-to-date financial statement losses. For the three months ended June 30, 2023, the effective tax rate was higher than the statutory rate of 21% primarily due to state tax expense. For the three and six months ended June 30, 2022, the effective tax rate was higher than the statutory rate of 21% primarily due to state tax expense partially offset by tax benefit resulting from the release of valuation allowance on state net operating losses.

The Inflation Reduction Act ("IRA") enacted on August 16, 2022, introduced new provisions including a 15% corporate book minimum tax and a 1% excise tax on net share repurchases with both taxes effective beginning in fiscal year 2023 for NRG. The Company will continue to evaluate the impact of the corporate book minimum tax when the U.S. Treasury and the IRS release further guidance. Additionally, the IRA establishes a tax credit associated with existing nuclear facilities which begins in 2024 and terminates at the end of 2031. The production tax credit will fully apply when gross revenues are at or below $25 per MWh and phases out completely at $43.75 per MWh. The U.S. Treasury is in the process of defining the methods by which gross revenues may be calculated pursuant to the IRA.

Uncertain Tax Benefits

As of June 30, 2023, NRG had a non-current tax liability of $45 million for uncertain tax benefits from positions taken on various federal and state income tax returns inclusive of accrued interest. For the six months ended June 30, 2023, NRG accrued an immaterial amount of interest relating to the uncertain tax benefits. As of June 30, 2023, NRG had cumulative interest and penalties related to these uncertain tax benefits of $2 million. The Company recognizes interest and penalties related to uncertain tax benefits in income tax expense.

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 2019. With few exceptions, state and Canadian income tax examinations are no longer open for years prior to 2014.

Note 15 — 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)	Three months ended June 30, 2023	Three months ended June 30, 2022	Six months ended June 30, 2023	Six months ended June 30, 2022
Revenues from Related Parties Included in Revenue				
Gladstone	$ —	$ —	$ 1	$ 1
Ivanpah[(a)]	21	9	55	22
Midway-Sunset	1	1	2	3
Total	$ 22	$ 10	$ 58	$ 26

(a) Also includes fees under project management agreements with each project company

Note 16 — Commitments and Contingencies

Commitments

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 June 30, 2023, hedges under the first lien program were out-of-the-money for NRG 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 17, *Regulatory Matters*, and Note 18, *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. During the second quarter of 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 Cases — In the cases set forth below, referred to as the Variable Price Cases, such actions involve consumers alleging that one of the Company's ESCOs 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 underlying claims of each case are similar and the Company continues to deny the allegations and is vigorously defending these matters. These matters were known and accrued for at the time of each acquisition.

<u>XOOM Energy</u>
Mirkin v. XOOM Energy (E.D.N.Y. Aug. 2019) is a defendant in a putative class action lawsuit pending in New York. Summary judgment is fully briefed. XOOM is waiting for a ruling from the trial court.

<u>Direct Energy</u>
There are two putative class actions pending against Direct Energy: (1) Richard Schafer v. Direct Energy (W.D.N.Y. Dec. 2019; on appeal 2nd Cir. N.Y.) - The Second Circuit sent the matter back to the trial court in December 2021. After discovery, Direct Energy filed summary judgment. Direct Energy won summary judgment and Schafer appealed. The appeal is fully briefed. Oral argument has not been set. Given the result of Martin Forte v. Direct Energy (N.D.N.Y. Mar. 2017), the trial

court's summary judgment will be upheld and Direct Energy is expected to prevail; and (2) Andrew Gant v. Direct Energy and NRG (D.N.J. Aug. 2022) - Direct Energy and NRG filed a Motion to Dismiss on October 18, 2022.

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 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 October 19, 2022, Direct Energy filed a Motion to Transfer Venue asking the Court to transfer the case to the Southern District where the Burk case was filed. On April 12, 2023, the Court granted Direct Energy's Motion to Transfer Venue, moving to the case to the Southern District of Texas; 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 case will go back to the trial court where Direct Energy will seek a stay to file a petition for review by the U.S. Supreme Court.

Sales Practice Lawsuits

There are three litigation matters relating to claims made by Vivint Smart Home competitors against Vivint Smart Home alleging, among other things, that Vivint Smart Home's sales representatives used deceptive sales practices. Vivint Smart Home intends to vigorously defend these matters. These matters were known and accrued for at the time of the acquisition. The three matters are: (1) CPI Security Systems, Inc. ("CPI") v. Vivint Smart Home, Inc. (W.D.N.C. Sept. 2020). The CPI matter that 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 filed its post-trial motion in March 2023 and continues to evaluate its post-trial and appeal options. While Vivint Smart Home believes the CPI jury verdict is not legally or factually supported and intends to pursue post judgment remedies and file an appeal, there can be no assurance that such defense efforts will be successful; (2) ADT LLC, et al. ("ADT") v. Vivint Smart Home, Inc. f/k/a Mosaic Acquisition Corporation, et al.(S.D.Fl. Aug. 2020). The parties mediated in May 2023 and agreed on a settlement. In June 2023, the Court granted final approval of the settlement, which was paid in June 2023; and (3) Alert 360 Opco, Inc, et al. ("Alert 360") v. Vivint Smart Home, Inc., et al (N.D.Ok. March 2023). On March 1, 2023, Alert 360 filed a complaint against Vivint Smart Home alleging, among other things, deceptive sales practices.

Contract Disputes

Alarm.com — In September 2022, Vivint Smart Home sent Alarm.com a notice asserting that it was no longer obligated to pay certain license fees under the Patent Cross License Agreement between the parties on the basis that Vivint Smart Home no longer practices any claim under any valid Alarm.com patent and, therefore, no license fees are due. Alarm.com filed an arbitration demand against Vivint Smart Home alleging, among other things, breach of the agreement due to continued use of the patents in question. The arbitration panel recently determined that Vivint Smart Home's challenge to the validity of certain Alarm.com patents will be considered as part of the arbitration proceeding.

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. NRG believes the claims set forth by CPS and Austin Energy in the lawsuit and the NRC proceedings are without merit and intends to vigorously defend against them. For further discussion of the transaction, see Note 4, *Acquisitions and Dispositions.*

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 severed from the multi-district litigation and will be seeking dismissal in any remaining cases. 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 case is currently stayed pending appeal by other parties on other issues. The Company intends to vigorously defend these matters.

Indemnifications and Other Contractual Arrangements

Washington-St. Tammany and Claiborne Electric Cooperative v. LaGen — On June 28, 2017, plaintiffs Washington-St. Tammany Electric Cooperative, Inc. and Claiborne Electric Cooperative, Inc. filed a lawsuit against LaGen in the United States District Court for the Middle District of Louisiana. The plaintiffs claimed breach of contract against LaGen for allegedly improperly charging the plaintiffs for costs related to the installation and maintenance of certain pollution control technology. Plaintiffs sought damages for the alleged improper charges and a declaration as to which charges were proper under the contract. In February 2020, the federal court dismissed this lawsuit without prejudice for lack of subject matter jurisdiction. On March 17, 2020, plaintiffs filed a lawsuit in the Nineteenth Judicial District Court for the Parish of East Baton Rouge in Louisiana alleging substantially the same matters. On February 4, 2019, NRG sold the South Central Portfolio, including the entities subject to this litigation. However, NRG has agreed to indemnify the purchaser for certain losses suffered in connection with this litigation.

Note 17 — Regulatory Matters

Environmental regulatory matters are discussed within Note 18, *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 proceeding 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.

Note 18 — 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 discharge and use, and threatened and endangered species. 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 — On July 8, 2019, the EPA promulgated the ACE rule, which rescinded the CPP, which had sought to broadly regulate CO_2 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 23, 2023, the EPA proposed significantly revising the manner in which new and existing EGU's GHG emissions should be regulated including using hydrogen as a fuel, capturing and storing/sequestering CO_2 and requiring new units to be more efficient. The EPA has stated that it intends to finalize these revisions in 2024. The Company expects that the final rule will be challenged in the courts and accordingly uncertain for several years.

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 United States 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 published this rule in the Federal Register. 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 five other states. The final rule decreases, over time, the ozone-season NOx allowances allocated to generators in the states not affected by the judicial stays beginning this summer by assuming that participants in this cap-and-trade program had or would optimize existing NOx controls and later install additional NOx controls. 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.

Regional Haze Proposal — On May 2023, the EPA proposed to withdraw the existing Texas Sulfur Dioxide Trading Program and replace it with unit-specific SO_2 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 SO_2 limits for two of the Company's coal-fired units in Texas. The Company cannot predict the outcome of this proposal.

Water

Effluent Limitations Guidelines — In November 2015, the EPA revised the Effluent Limitations Guidelines ("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, the EPA announced that it was initiating a new rulemaking to evaluate revising the ELG rule but keeping the existing rule (as amended in 2020) in place. On March 29, 2023, the EPA proposed revisions to the ELG and sought comments on the proposal, which the EPA are currently analyzing. 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.

Byproducts, Wastes, Hazardous Materials and Contamination

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 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," which further amended the April 2015 Rule to, among other things, provide procedures for requesting approval to operate existing impoundments with an alternative liner. On May 23, 2023, the EPA proposed establishing requirements for: (i) inactive (or legacy) surface impoundments at inactive facilities and (ii) all coal combustion residual ("CCR") management units (regardless of how or when the CCR was placed) at regulated facilities. The EPA also solicited comments on this proposal. NRG anticipates further rulemaking related to the Federal Permit Program and legacy surface impoundments.

ITEM 2 — 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 introduction and overview, business strategy, and changes to the business environment during the period, including environmental and regulatory matters;
- Results of operations;
- Liquidity and capital resources including liquidity position, financial condition addressing credit ratings, material cash requirements and commitments, and other obligations; and
- Known trends that may affect NRG's results of operations and financial condition in the future.

As you read this discussion and analysis, refer to NRG's Condensed Consolidated Statements of Operations to this Form 10-Q, which present the results of operations for the three and six months ended June 30, 2023 and 2022. Also refer to NRG's 2022 Form 10-K, which includes detailed discussions of various items impacting the Company's business, results of operations and financial condition, including: General section; Strategy section; Business Overview section, including how regulation, weather, and other factors affect NRG's business; and Critical Accounting Estimates section.

Executive Summary

Introduction and Overview

NRG Energy, Inc., or NRG or the Company, is a leading energy, smart home and services 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 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 7.5 million residential consumers in addition to commercial, industrial, and wholesale customers, supported by approximately 16 GW of generation.

Strategy

NRG's strategy is to maximize stockholder value through the safe production and sale of reliable electricity and natural gas to its customers in the markets it serves, while also providing innovative home solutions to the end-use energy or service consumer. This strategy is intended to enable the Company to optimize the integrated model to generate stable and predictable cash flow, significantly strengthen earnings and cost competitiveness, and lower risk and volatility. Sustainability is a philosophy that underpins and facilitates value creation across NRG's business for its stakeholders. It is an integral piece of NRG's strategy and ties directly to business success, reduced risks and enhanced reputation.

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 cross selling opportunities through its multiple brands and channels; (ii) offering a variety of energy products and services, including renewable energy solutions 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) optimal hedging of its portfolio; and (v) engaging in disciplined and transparent capital allocation.

Energy Regulatory Matters

The Company's regulatory matters are described in the Company's 2022 Form 10-K in Item 1, Business — *Regulatory Matters.* These matters have been updated below and in Note 17, *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, as well as to regulation by the NRC with respect to NRG's ownership interest in STP.

Regional Regulatory Developments

NRG is affected by rule/tariff changes that occur in the ISO regions. For further discussion on regulatory developments, see Note 17, *Regulatory Matters*.

Texas

Public Utility Commission of Texas' Actions with Respect to Wholesale Pricing and Market Design — Throughout 2022, the PUCT analyzed multiple options for promoting increased reliability in the wholesale electric market. The PUCT engaged an independent consultant, E3, to evaluate various resource adequacy proposals and recommend a policy direction to increase incentives for investment in dispatchable generation in ERCOT. On November 10, 2022, the independent consultant provided a report including various market design options such as a Forward Reliability Market, Load Servicing Entity Reliability Obligation and a new concept called a Performance Credit Mechanism ("PCM"). The PCM measures real-time contribution to system reliability and provides compensation for resources to be available. The PUCT staff filed a summary of comments and their recommendations, which support PCM. On January 19, 2023, the Commission approved an order adopting the PCM as their policy direction for resource adequacy in ERCOT, however, implementation was delayed until the legislature reviewed. Subsequently, during the 88th Regular Session, the Texas Legislature authorized deployment of the PCM, subject to certain "guardrails" such as an 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 to further increase ERCOT's capability to manage net load variability, firming requirements for new generation resources which penalize poor performance during periods of low grid reserves, and a loan program to incentivize expansion and construction of dispatchable generation resources.

Operating Reserve Demand Curve ("ORDC") — On August 3, 2023, the PUCT approved implementation of an enhancement to the ORDC as a bridge solution that was recommended by the ERCOT Technical Advisory Committee and the ERCOT Board of Directors. The ORDC enhancement will install price floors of $10 and $20 at reserve levels of 7,000 MW and 6,500 MW or below, respectively. ERCOT is expected to complete implementation in the fourth quarter of 2023.

Ruling on Pricing during Winter Storm Uri — On March 17, 2023, the Third Court of Appeals issued a ruling in Luminant Energy Co. v. PUCT, which is an appeal relating to 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 Third Court found 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. The Third Court reversed the PUCT's orders and remanded the case. On March 23, 2023, the PUCT filed a petition for review to the Supreme Court of Texas seeking reversal of the Third Court's decision. The outcome of this case could require a repricing of the market prices during the subject time period.

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. Pursuant to amendments to Public Utility Regulation Act § 15.023 adopted during the 88th Legislative Session, NRG's VMP will be reviewed by the PUCT within two years or, in the event a wholesale market design change is made, not later than the 90th day after the implementation date of such change.

PJM

Revisions to PJM Local Deliverability Area Reliability Requirement — The Base Residual Auction 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 Locational Deliverability Area Reliability Requirement in the Tariff. This would allow PJM to exclude certain resources from the calculation of the Local Deliverability Area Reliability Requirement. On February 21, 2023, FERC accepted PJM's filing. Multiple parties, including NRG, have 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. The price of the auction cleared significantly lower as a result of the PJM Tariff change.

Capacity Performance Penalties and Bonuses from Winter Storm Elliott — PJM experienced approximately 23 hours of Capacity Performance events from December 23-24, 2022 across PJM's entire footprint. The Company will be subject to penalty or bonus payments related to the events with settlements to occur in 2023. PJM anticipates that certain market participants who incurred penalties may encounter challenges in paying penalties levied upon them. This may result in bonus payments being prorated. On February 2, 2023, PJM made a filing at FERC that, if approved, would give PJM the ability to extend the payment period for PJM members who incurred penalties for an additional 9 months. On April 3, 2023, FERC approved PJM's request to allow Winter Storm Elliott penalty payments to be spread over 9 months (with interest) and allow future penalties to have a 9 month window to be satisfied without interest. In addition, multiple generators filed various complaints against PJM at FERC alleging that PJM violated its Tariff in, among other things, the manner in which it operated the system during Winter Storm Elliott and the resulting assessment of capacity performance penalties. On June 5, 2023, FERC issued an order setting the various complaints for settlement. Settlement discussions are ongoing at FERC.

FERC Delays PJM Base Residual Auctions — On April 11, 2023, PJM filed to delay the Base Residual Auctions for the 2025/2026 to 2028/2029 delivery years. PJM proposes to develop market reforms to improve the operation of the capacity market, and plans to make a filing regarding those reforms by October 1, 2023. PJM proposes to restart the auctions after FERC's ruling on these market changes. On June 9, 2023, FERC issued an order approving the delay in the Base Residual Auctions and required PJM to make a compliance filing that will specify future auction dates. On June 26, 2023, PJM made its compliance filing specifying the dates for the 2025/2026 Delivery Year through the 2028/2029 Delivery Year.

PJM Files to Make Changes to the Performance Assessment Interval Trigger — On May 30, 2023, PJM filed proposed tariff revisions at FERC that narrow the definition of Emergency Actions used to determine Performance Assessment Intervals ("PAIs"). The matter is pending at FERC. If approved, the new definition would decrease the instances of when PAIs would occur and therefore decrease the instances of when capacity performance penalties are assessed.

California

California Resource Adequacy Proceedings — As part of the Integrated Resource Procurement docket, the CPUC approved a decision on June 24, 2021 that requires all LSEs to procure a pro rata share of 11.5 GW of new non-fossil resource adequacy from 2023 to 2026. Further, a procurement order in this docket issued in February 2023 directed LSEs to procure an additional four GW of clean resources in the 2026 to 2028 timeframe. A May 2023 proposed decision in the docket would keep the reserve margin at 17 percent in 2024 and 2025, but extend the CPUC orders for the state's major investor-owned utilities to procure additional summer reliability resources through 2025, creating an "effective" reserve margin of 21 to 23.5 percent. SB846 establishes a pathway for PG&E's Diablo Canyon Nuclear power plant, which units are scheduled to close in 2024 and 2025, to remain open for at least five additional years. Recently opened rulemaking will determine how the resource adequacy from the extension will be treated. Finally, the CPUC released a proposed order in March 2023 regarding details for implementation of a new Resource Adequacy ("RA") program beginning in 2025 which will require procurement to meet needs during every hour of the day. The result of these changes will likely keep RA prices elevated in the near term and if LSEs cannot meet their RA obligations, penalties and restrictions on serving new customers may be issued.

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 historically have become more stringent over time. Future laws may require the addition of emissions controls or other environmental controls or impose restrictions on the Company's operations. 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.

A number of regulations that affect the Company have been revised recently and continue to be revised by the EPA, including ash storage and disposal requirements, 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 and legal challenges are resolved. The Company's environmental matters are described in the Company's 2022 Form 10-K in Item 1, Business - *Environmental Matters* and Item 1A, Risk Factors. These matters have been updated in Note 18, *Environmental Matters,* to the condensed consolidated financial statements of this Form 10-Q and as follows.

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 SO_2, ozone, and PM2.5. 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 January 2023, the EPA proposed increasing the stringency of the PM2.5 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 October 2015, the EPA promulgated the CPP, addressing GHG emissions from existing EGUs. On February 9, 2016, the U.S. Supreme Court stayed the CPP. In July 2019, EPA promulgated the ACE rule, which rescinded the CPP, which had sought to broadly regulate CO_2 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 23, 2023, the EPA proposed significantly revising the manner in which new and existing EGU's GHG emissions should be regulated including using hydrogen as a fuel, capturing and storing/sequestering CO_2 and requiring new units to be more efficient. The EPA has stated that it intends to finalize these revisions in 2024. The Company expects that the final rule will be challenged in the courts and accordingly uncertain for several years.

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 United States 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 published this rule in the Federal Register. 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 five other states. The final rule decreases, over time, the ozone-season NOx allowances allocated to generators in the states not affected by the judicial stays beginning this summer by assuming that participants in this cap-and-trade program had or would optimize existing NOx controls and later install additional NOx controls. 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.

Regional Haze Proposal — On May 2023, the EPA proposed to withdraw the existing Texas Sulfur Dioxide Trading Program and replace it with unit-specific SO_2 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 SO_2 limits for two of the Company's coal-fired units in Texas. The Company cannot predict the outcome of this proposal.

Byproducts, Wastes, Hazardous Materials and Contamination

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 23, 2023, the EPA proposed establishing requirements for: (i) inactive (or legacy) surface impoundments at inactive facilities and (ii) all CCR management units (regardless of how or when the CCR was placed) at regulated facilities. NRG anticipates further rulemaking related to the Federal Permit Program and legacy surface impoundments.

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.

Nuclear Waste — The federal government's program to construct a nuclear waste repository at Yucca Mountain, Nevada was discontinued in 2010. Since 1998, the U.S. DOE has been in default of the federal government's obligations to begin accepting spent nuclear fuel, or SNF, and high-level radioactive waste, or HLW, under the Nuclear Waste Policy Act. Owners of nuclear plants, including the owners of STP, had been required to enter into contracts setting out the obligations of the owners and the U.S. DOE, including the fees to be paid by the owners for the U.S. DOE's services to license a spent fuel repository. Effective May 16, 2014, the U.S. DOE stopped collecting the fees.

On February 5, 2013, STPNOC entered into a settlement agreement with the U.S. DOE for payment of damages relating to the U.S. DOE's failure to accept SNF and HLW under the Nuclear Waste Policy Act through December 31, 2013, which has been extended four times through addendums to cover payments through December 31, 2025. There are no facilities for the reprocessing or permanent disposal of SNF currently in operation in the U.S., nor has the NRC licensed any such facilities. STPNOC currently stores all SNF generated by its nuclear generating facilities on-site. STPNOC plans to continue to assert claims against the U.S. DOE for damages relating to the U.S. DOE's failure to accept SNF and HLW.

Under the federal Low-Level Radioactive Waste Policy Act of 1980, as amended in 1985, the state of Texas is required to provide, either on its own or jointly with other states in a compact, for the disposal of all low-level radioactive waste generated within the state. Texas is currently in a compact with the state of Vermont, and the compact low-level waste facility located in Andrews County in Texas has been operational since 2012.

Water

The Company is required under the CWA 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.

Effluent Limitations Guidelines — In November 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, the EPA announced that it was initiating a new rulemaking to evaluate revising the ELG rule but keeping the existing rule (as amended in 2020) in place. On March 29, 2023, the EPA proposed revisions to the ELG and sought comments, which the EPA are currently analyzing. 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.

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 has begun to apply for construction permits (for closure) as required by the regulation.

Houston Nonattainment for 2008 Ozone Standard — During the fourth quarter of 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.

Significant Events

The following significant events have occurred during 2023 as further described within this Management's Discussion and Analysis and the condensed consolidated financial statements:

Planned sale of the 44% equity interest in STP

On May 31, 2023, the Company entered into a definitive equity purchase agreement to sell its 44% equity interest in STP to Constellation for $1.75 billion, subject to customary purchase price adjustments. The transaction is expected to close by the end of 2023 and is subject to regulatory approval by the NRC. The waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, expired in July 2023. For further discussion, see Note 4, *Acquisitions and Dispositions*.

Vivint Smart Home Acquisition

On March 10, 2023, the Company completed the acquisition of Vivint Smart Home. The Company paid $12 per share, or $2.6 billion in cash. For further discussion, see Note 4, *Acquisitions and Dispositions*.

Series A Preferred Stock

On March 9, 2023, the Company issued 650,000 shares of 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock. The proceeds, net of issuance costs, of $635 million were used to partially fund the Vivint Smart Home acquisition. For further discussion, see Note 11, *Changes in Capital Structure*.

Issuance of 2033 Senior Secured First Lien Notes

On March 9, 2023, the Company issued $740 million of aggregate principal amount of 7.000% senior secured first lien notes due 2023. The net proceeds of $724 million, net of issuance costs, were used to partially fund the Vivint Smart Home acquisition. For further discussion, see Note 9, *Long-term Debt and Finance Leases*.

Astoria

On January 6, 2023, NRG closed on the sale of land and related assets from the Astoria site, within the East region of operations, for initial proceeds of $212 million, subject to transaction fees of $3 million and certain indemnifications. NRG recognized a gain on the sale of $199 million. As part of the transaction, NRG entered into an agreement to lease the land back for the purpose of operating the Astoria gas turbines. The lease agreement is expected to terminate by the end of the year after decommissioning is complete.

W.A. Parish Extended Outage

In May 2022, W.A. Parish Unit 8 came offline as a result of damage to the steam turbine/generator. Based on work completed to date, the Company expects to return the unit to service in late August 2023.

Share Repurchases

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. During July 2023, the Company purchased 1,322,141 shares for $50 million at an average price of $37.82 under the $2.7 billion authorization.

Dividend Increase

In the first quarter of 2023, NRG increased the annual dividend to $1.51 from $1.40 per share, representing an 8% increase from 2022. The Company expects to target an annual dividend growth rate of 7-9% per share in subsequent years.

Renewable Power Purchase Agreements

The Company's strategy is to procure mid to long-term generation through power purchase agreements. As of June 30, 2023, NRG has entered into Renewable PPAs totaling approximately 1.9 GW with third-party project developers and other counterparties, of which approximately 1.1 GW are operational. The average tenure of these agreements is eleven years. The Company expects to continue evaluating and executing similar agreements that support the needs of the business. The total GW procured through Renewable PPAs may be impacted by contract terminations when they occur.

Trends Affecting Results of Operations and Future Business Performance

The Company's trends are described in the Company's 2022 Form 10-K in Item 7, M*anagement's Discussion and Analysis of Financial Condition and Results of Operations - Business Environment.*

Changes in Accounting Standards

See Note 2, *Summary of Significant Accounting Policies*, for a discussion of recent accounting developments.

Consolidated Results of Operations

The following table provides selected financial information for the Company:

(In millions, except as otherwise noted)	Three months ended June 30, 2023	Three months ended June 30, 2022	Three months ended June 30, Change	Six months ended June 30, 2023	Six months ended June 30, 2022	Six months ended June 30, Change
Revenue						
Retail revenue	$ 6,027	$ 6,951	$ (924)	$ 13,390	$ 14,521	$ (1,131)
Energy revenue[a]	83	306	(223)	211	584	(373)
Capacity revenue[a]	49	90	(41)	91	206	(115)
Mark-to-market for economic hedging activities	75	(148)	223	166	(281)	447
Contract amortization	(8)	(13)	5	(19)	(22)	3
Other revenues[a][b]	122	96	26	231	170	61
Total revenue	6,348	7,282	(934)	14,070	15,178	(1,108)
Operating Costs and Expenses						
Cost of fuel	227	532	305	390	861	471
Purchased energy and other cost of sales[c]	4,282	5,811	1,529	10,284	12,263	1,979
Mark-to-market for economic hedging activities	11	(867)	(878)	2,046	(3,277)	(5,323)
Contract and emissions credit amortization[c]	(18)	(35)	(17)	90	103	13
Operations and maintenance	361	354	(7)	746	690	(56)
Other cost of operations	99	92	(7)	184	177	(7)
Cost of operations (excluding depreciation and amortization shown below)	4,962	5,887	925	13,740	10,817	(2,923)
Depreciation and amortization	315	157	(158)	505	340	(165)
Impairment losses	—	155	155	—	155	155
Selling, general and administrative costs	522	351	(171)	948	698	(250)
Acquisition-related transaction and integration costs	22	10	(12)	93	18	(75)
Total operating costs and expenses	5,821	6,560	739	15,286	12,028	(3,258)
Gain on sale of assets	3	32	(29)	202	29	173
Operating Income/(Loss)	530	754	(224)	(1,014)	3,179	(4,193)
Other Income/(Expense)						
Equity in earnings/(losses) of unconsolidated affiliates	5	4	1	10	(11)	21
Other income, net	13	12	1	29	12	17
Interest expense	(151)	(105)	(46)	(299)	(208)	(91)
Total other expense	(133)	(89)	(44)	(260)	(207)	(53)
Income/(Loss) Before Income Taxes	397	665	(268)	(1,274)	2,972	(4,246)
Income tax expense/(benefit)	89	152	63	(247)	723	970
Net Income/(Loss)	$ 308	$ 513	$ (205)	$ (1,027)	$ 2,249	$ (3,276)

(a) Includes gains and losses from financially settled transactions
(b) Includes trading gains and losses and ancillary revenues
(c) Includes amortization of SO_2 and NOx credits and excludes amortization of RGGI credits

Management's discussion of the results of operations for the three months ended June 30, 2023 and 2022

Electricity Prices

The following table summarizes average on peak power prices for each of the major markets in which NRG operates for the three months ended June 30, 2023 and 2022. Average on-peak power prices decreased for the three months ended June 30, 2023 as compared to the same period in 2022 as a result of lower natural gas prices.

	Average on Peak Power Price ($/MWh)		
	Three months ended June 30,		
Region	**2023**	**2022**	**Change %**
Texas			
ERCOT - Houston[(a)]	$ 56.54	$ 126.30	(55)%
ERCOT - North[(a)]	54.02	79.14	(32)%
East			
NY J/NYC[(b)]	$ 32.02	$ 81.32	(61)%
NEPOOL[(b)]	32.55	73.28	(56)%
COMED (PJM)[(b)]	30.00	84.77	(65)%
PJM West Hub[(b)]	35.41	93.00	(62)%
West			
MISO - Louisiana Hub[(b)]	$ 35.30	$ 91.97	(62)%
CAISO - SP15[(b)]	30.00	60.34	(50)%

(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

Natural Gas Prices

The following table summarizes the average Henry Hub natural gas price for the three months ended June 30, 2023 and 2022.

	Three months ended June 30,		
	2023	**2022**	**Change %**
($/MMBtu)	$ 2.10	$ 7.17	(71)%

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 chief operating decision maker. Economic gross margin is defined as the sum of retail revenue, energy revenue, capacity revenue and other revenue, less cost of fuel, 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, emissions credit amortization, depreciation and amortization, operations and maintenance, or other cost of operations.

The below tables present the composition and reconciliation of gross margin and economic gross margin for the three months ended June 30, 2023 and 2022:

	Three months ended June 30, 2023					
($ In millions)	Texas	East	West/Services/ Other	Vivint Smart Home	Corporate/ Eliminations	Total
Retail revenue	$ 2,395	$ 2,358	$ 830	$ 444	$ —	$ 6,027
Energy revenue	16	28	40	—	(1)	83
Capacity revenue	—	49	—	—	—	49
Mark-to-market for economic hedging activities	—	52	23	—	—	75
Contract amortization	—	(7)	(1)	—	—	(8)
Other revenue[a]	104	23	—	—	(5)	122
Total revenue	2,515	2,503	892	444	(6)	6,348
Cost of fuel	(184)	(15)	(28)	—	—	(227)
Purchased energy and other cost of sales[b][c][d]	(1,403)	(2,129)	(714)	(41)	5	(4,282)
Mark-to-market for economic hedging activities	334	(204)	(141)	—	—	(11)
Contract and emission credit amortization	(3)	23	(2)	—	—	18
Depreciation and amortization	(73)	(30)	(23)	(180)	(9)	(315)
Gross margin	**$ 1,186**	**$ 148**	**$ (16)**	**$ 223**	**$ (10)**	**$ 1,531**
Less: Mark-to-market for economic hedging activities, net	334	(152)	(118)	—	—	64
Less: Contract and emission credit amortization, net	(3)	16	(3)	—	—	10
Less: Depreciation and amortization	(73)	(30)	(23)	(180)	(9)	(315)
Economic gross margin	**$ 928**	**$ 314**	**$ 128**	**$ 403**	**$ (1)**	**$ 1,772**

(a) Includes trading gains and losses and ancillary revenues

(b) Includes capacity and emissions credits

(c) Includes $688 million, $56 million and $241 million of TDSP expense in Texas, East and West/Services/Other, respectively

(d) Excludes depreciation and amortization shown separately

Business Metrics	Texas	East	West/Services/ Other	Vivint Smart Home	Corporate/ Eliminations	Total
Retail sales						
Home power sales volume (GWh)	9,799	2,789	509	—	—	13,097
Business power sales volume (GWh)	10,028	11,391	2,282	—	—	23,701
Home natural gas sales volume (MDth)	—	7,716	11,582	—	—	19,298
Business natural gas sales volume (MDth)	—	352,007	42,179	—	—	394,186
Average retail Home customer count (in thousands)[a]	2,866	1,850	777	—	—	5,493
Ending retail Home customer count (in thousands)[a]	2,869	1,858	772	—	—	5,499
Average Vivint Smart Home subscriber count (in thousands)[b]	—	—	—	1,965	—	1,965
Ending Vivint Smart Home subscriber count (in thousands) [b]	—	—	—	2,004	—	2,004
Power generation						
GWh sold	7,508	624	1,566	—	—	9,698
GWh generated[c]						
Coal	3,690	148	—	—	—	3,838
Gas	1,625	46	1,565	—	—	3,236
Nuclear	2,193	—	—	—	—	2,193
Renewables	—	—	1	—	—	1
Total	7,508	194	1,566	—	—	9,268

(a) Home customer count includes recurring residential customers, services customers and municipal aggregations

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

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

($ In millions)	Three months ended June 30, 2022 Texas	East	West/ Services/Other	Corporate/ Eliminations	Total
Retail revenue	$ 2,565	$ 3,400	$ 987	$ (1)	$ 6,951
Energy revenue	38	128	131	9	306
Capacity revenue	—	89	1	—	90
Mark-to-market for economic hedging activities	(1)	(106)	(38)	(3)	(148)
Contract amortization	—	(11)	(2)	—	(13)
Other revenue[(a)]	90	14	(3)	(5)	96
Total revenue	2,692	3,514	1,076	—	7,282
Cost of fuel	(354)	(72)	(106)	—	(532)
Purchased energy and other cost of sales[(b)(c)(d)]	(1,685)	(3,267)	(855)	(4)	(5,811)
Mark-to-market for economic hedging activities	607	242	15	3	867
Contract and emission credit amortization	2	36	(3)	—	35
Depreciation and amortization	(77)	(50)	(22)	(8)	(157)
Gross margin	**$ 1,185**	**$ 403**	**$ 105**	**$ (9)**	**$ 1,684**
Less: Mark-to-market for economic hedging activities, net	606	136	(23)	—	719
Less: Contract and emission credit amortization, net	2	25	(5)	—	22
Less: Depreciation and amortization	(77)	(50)	(22)	(8)	(157)
Economic gross margin	**$ 654**	**$ 292**	**$ 155**	**$ (1)**	**$ 1,100**

(a) Includes trading gains and losses and ancillary revenues

(b) Includes capacity and emissions credits

(c) Includes $796 million, $50 million and $275 million of TDSP expense in Texas, East, and West/Services/Other, respectively

(d) Excludes depreciation and amortization shown separately

Business Metrics	Texas	East	West/Services/ Other	Corporate/ Eliminations	Total
Retail sales					
Home power sales volume (GWh)	11,587	3,022	487	—	15,096
Business power sales volume (GWh)	10,162	12,210	2,442	—	24,814
Home natural gas sales volume (MDth)	—	7,096	14,333	—	21,429
Business natural gas sales volume (MDth)	—	328,490	37,829	—	366,319
Average retail Home customer count (in thousands)[(a)]	3,015	1,789	800	—	5,604
Ending retail Home customer count (in thousands)[(a)]	2,994	1,808	799	—	5,601
Power generation					
GWh sold	10,035	1,946	1,874	—	13,855
GWh generated[(b)]					
Coal	4,852	1,361	—	—	6,213
Gas	2,661	37	1,876	—	4,574
Nuclear	2,522	—	—	—	2,522
Renewables	—	—	4		4
Total	10,035	1,398	1,880	—	13,313

(a) Home customer count includes recurring residential customers, services customers and municipal aggregations

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

The table below represents the weather metrics for the three months ended June 30, 2023 and 2022:

Weather Metrics	Three months ended June 30, Texas	East	West/Services/ Other[(b)]
2023			
CDDs[(a)]	978	273	502
HDDs[(a)]	57	479	254
2022			
CDDs	1,283	352	674
HDDs	24	486	194
10-year average			
CDDs	986	356	557
HDDs	67	547	188

(a) National Oceanic and Atmospheric Administration-Climate Prediction Center - A Cooling Degree Day, or CDD, represents the number of degrees that the mean temperature for a particular day is above 65 degrees Fahrenheit in each region. A Heating Degree Day, or 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

(b) 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

Gross Margin and Economic Gross Margin

Gross margin decreased $153 million and economic gross margin increased $672 million during the three months ended June 30, 2023, compared to the same period in 2022.

The tables below describe the changes in gross margin and economic gross margin by segment:

Texas

	(In millions)
Higher gross margin due to the net effect of: • increased net revenue rates of $4.75 per MWh, or $157 million, primarily driven by changes in customer term, product and mix; and • a $197 million decrease in cost to serve the retail load, primarily driven by lower supply costs which were a result of lower power pricing, the diversified supply strategy and improved plant performance coupled with the 2022 impact of the W.A. Parish Unit 8 extended outage that began in May 2022	$ 354
Lower gross margin due to a decrease in load of 600,000 MWh, or $58 million, driven by a decrease in customer count and changes in customer mix, and a decrease in load of 1.3 TWh, or $44 million, from weather	(102)
Higher gross margin due to market optimization activities	26
Other	(4)
Increase in economic gross margin	**$ 274**
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges	(272)
Increase in contract and emission credit amortization	(5)
Decrease in depreciation and amortization	4
Increase in gross margin	**$ 1**

East

		(In millions)
Lower gross margin due to a decrease in generation and capacity as a result of asset retirements	$	(43)
Higher electric gross margin due to higher net revenue rates as a result of changes in customer term, product and mix of $4.75 per MWh, or $66 million, as well as lower supply costs of $2.00 per MWh, or $28 million, driven primarily by decreases in power prices		94
Lower electric gross margin from decreased volume due to change in customer mix and weather		(9)
Lower natural gas gross margin, including the impact of transportation and storage contract optimization, resulting in lower net revenue rates from changes in customer term, product, and mix of $3.30 per Dth, or $1.21 billion, partially offset by lower supply costs of $3.25 per Dth, or $1.17 billion, driven primarily by decrease in gas costs		(43)
Higher natural gas gross margin from increased volume due to an increase in customer count and change in customer mix		26
Lower gross margin primarily due to a 58% decrease in PJM capacity prices and a 23% decrease in PJM capacity volumes		(25)
Higher gross margin due to a decrease in supply costs at Midwest Generation, offset by an 81% decrease in generation volumes due to dark spread contractions		17
Other		5
Increase in economic gross margin	**$**	**22**
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges		(288)
Increase in contract amortization		(9)
Decrease in depreciation and amortization		20
Decrease in gross margin	**$**	**(255)**

West/Services/Other

		(In millions)
Lower gross margin primarily due to lower Services sales	$	(18)
Lower electric gross margin due to an increase in supply rate of $17.75 per MWh, or $50 million, partially offset by higher revenue rate of $12.50 per MWh, or $35 million, and changes in customer mix of $2 million		(13)
Higher natural gas gross margin due to lower supply rates of $2.10 per Dth, or $113 million, partially offset by lower net revenue rates of $1.90 per Dth, or $102 million		11
Lower gross margin from market optimization activities		(7)
Decrease in economic gross margin	**$**	**(27)**
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges		(95)
Decrease in contract amortization		2
Increase in depreciation and amortization		(1)
Decrease in gross margin	**$**	**(121)**

Vivint Smart Home

		(In millions)
Increase due to the acquisition of Vivint Smart Home	$	403
Increase in economic gross margin	**$**	**403**
Increase in depreciation and amortization		(180)
Increase in gross margin	**$**	**223**

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 decreased by $655 million during the three months ended June 30, 2023, compared to the same period in 2022.

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

	Three months ended June 30, 2023				
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Eliminations**	**Total**
Mark-to-market results in revenue					
Reversal of previously recognized unrealized (gains)/losses on settled positions related to economic hedges	$ —	$ (2)	$ 17	$ (3)	$ 12
Net unrealized gains on open positions related to economic hedges	—	54	6	3	63
Total mark-to-market gains in revenue	$ —	$ 52	$ 23	$ —	$ 75
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	$ (39)	$ (73)	$ (54)	$ 3	$ (163)
Reversal of acquired loss positions related to economic hedges	11	20	4	—	35
Net unrealized gains/(losses) on open positions related to economic hedges	362	(151)	(91)	(3)	117
Total mark-to-market gains/(losses) in operating costs and expenses	$ 334	$ (204)	$ (141)	$ —	$ (11)

	Three months ended June 30, 2022				
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Eliminations**	**Total**
Mark-to-market results in revenue					
Reversal of previously recognized unrealized losses on settled positions related to economic hedges	$ —	$ 1	$ 6	$ (2)	$ 5
Reversal of acquired (gain) positions related to economic hedges	—	(1)	—	—	(1)
Net unrealized (losses) on open positions related to economic hedges	(1)	(106)	(44)	(1)	(152)
Total mark-to-market (losses) in revenue	$ (1)	$ (106)	$ (38)	$ (3)	$ (148)
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	$ (51)	$ (135)	$ (18)	$ 2	$ (202)
Reversal of acquired loss positions related to economic hedges	19	25	5	—	49
Net unrealized gains on open positions related to economic hedges	639	352	28	1	1,020
Total mark-to-market gains in operating costs and expenses	$ 607	$ 242	$ 15	$ 3	$ 867

Mark-to-market results consist of unrealized gains and losses on contracts that are not yet settled. The settlement of these transactions is reflected in the same revenue or cost caption as the items being hedged.

For the three months ended June 30, 2023, the $75 million gain in revenues from economic hedge positions was driven primarily by an increase in the value of open positions as a result of decreases in power and natural gas prices as well as the reversal of previously recognized unrealized losses on contracts that settled during the period. The $11 million 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 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 and the reversal of acquired loss positions.

For the three months ended June 30, 2022, the $148 million loss in revenues from economic hedge positions was driven primarily by a decrease in the value of open positions as a result of increases in PJM power prices. The $867 million gain in operating costs and expenses from economic hedge positions was driven primarily by an increase in the value of open positions as a result of increases in natural gas and power prices, partially offset by the reversal of previously recognized unrealized gains on contracts that settled during the period.

In accordance with ASC 815, the following table represents the results of the Company's financial and physical trading of energy commodities for the three months ended June 30, 2023 and 2022. The realized and unrealized financial and physical trading results are included in revenue. The Company's trading activities are subject to limits based on the Company's Risk Management Policy.

	Three months ended June 30,	
(In millions)	**2023**	**2022**
Trading (losses)/gains		
Realized	$ (5)	$ (5)
Unrealized	13	(2)
Total trading gains/(losses)	$ 8	$ (7)

Operations and Maintenance Expense

Operations and maintenance expense is comprised of the following:

(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home**	**Eliminations**	**Total**
Three months ended June 30, 2023	$ 164	$ 89	$ 55	$ 54	$ (1)	$ 361
Three months ended June 30, 2022	196	113	46	—	(1)	354

Operations and maintenance expense increased by $7 million for the three months ended June 30, 2023, compared to the same period in 2022, due to the following:

	(In millions)
Increase due to the acquisition of Vivint Smart Home	$ 54
Increase in major maintenance expenditures associated with the timing of planned outages at STP and scope and duration of outages at Texas gas facilities, Midwest Generation and Cottonwood	31
Decrease due to current year partial property insurance claim for the extended outage at W.A. Parish, partially offset by the cost of restoration efforts	(49)
Decrease due to change in estimates of environmental remediation costs at deactivated sites in the East in 2022	(19)
Decrease in variable operation and maintenance expense due to a reduction in PJM generation volumes in 2023	(10)
Decrease driven primarily by East asset retirements partially offset by an increase in deactivation costs in the West	(4)
Other	4
Increase in operations and maintenance expense	$ 7

Other Cost of Operations

Other cost of operations is comprised of the following:

(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home**	**Total**
Three months ended June 30, 2023	$ 62	$ 34	$ 2	$ 1	$ 99
Three months ended June 30, 2022	51	38	3	—	92

Other cost of operations for the three months ended June 30, 2023 increased by $7 million, when compared to the same period in 2022, due to the following:

	(In millions)
Increase due to higher property insurance premiums and property taxes	$ 12
Decrease primarily due to changes in timing of ARO spend at Midwest Generation	(8)
Other	3
Increase in other cost of operations	$ 7

Depreciation and Amortization

Depreciation and amortization are comprised of the following:

(In millions)	Texas	East	West/Services/ Other	Vivint Smart Home	Corporate	Total
Three months ended June 30, 2023	$ 73	$ 30	$ 23	$ 180	$ 9	$ 315
Three months ended June 30, 2022	77	50	22	—	8	157

Depreciation and amortization increased by $158 million for the three months ended June 30, 2023, compared to the same period in 2022, primarily due to higher amortization of intangible assets due to the acquisition of Vivint Smart Home in March 2023, partially offset by lower depreciation at Midwest Generation as a result of asset impairments and retirements in 2022.

Impairment Losses

Impairment losses of $155 million were recorded during the three months ended June 30, 2022 primarily related to impairments at Midwest Generation due to the decline in PJM capacity prices and the planned retirement of Joliet. For further discussion, see Note 8, *Impairments*.

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	Corporate	Total
Three months ended June 30, 2023	$ 173	$ 136	$ 54	$ 153	$ 6	$ 522
Three months ended June 30, 2022	164	115	58	—	14	351

Selling, general and administrative costs increased by $171 million for the three months ended June 30, 2023, compared to the same period in 2022, due to the following:

	(In millions)
Increase due to the acquisition of Vivint Smart Home	$ 153
Increase due to higher personnel costs	16
Increase due to higher provision for credit losses	11
Increase in broker fee and commission expenses	8
Decrease due to lower consulting and legal expenses	(11)
Decrease in marketing and media expenses	(2)
Other	(4)
Increase in selling, general and administrative costs	$ 171

Acquisition-Related Transaction and Integration Costs

Acquisition-related transaction and integration costs of $22 million were incurred during the three months ended June 30, 2023, which consisted of $2 million of acquisition costs and $14 million of integration costs related to Vivint Smart Home, as well as $6 million of integration costs primarily related to Direct Energy.

Acquisition-related transaction and integration costs of $10 million were incurred during the three months ended June 30, 2022, which are comprised primarily of integration costs related to Direct Energy.

Gain on Sale of Assets

The gain on sale of assets of $32 million for the three months ended June 30, 2022 was due to a gain of $46 million related to the sale of the Company's 49% ownership in the Watson natural gas generating facility in June, partially offset by a loss of $14 million on other asset sales.

Interest Expense

Interest expense increased by $46 million for the three months ended June 30, 2023, compared to the same period in 2022, primarily due to the Vivint Smart Home acquisition including the impact of newly issued Senior Secured First Lien Notes, acquired debt of Vivint Smart Home, and borrowings on the Revolving Credit Facility and the Receivables Securitization Facilities.

Income Tax Expense

For the three months ended June 30, 2023, income tax expense of $89 million was recorded on a pre-tax income of $397 million. For the same period in 2022, income tax expense of $152 million was recorded on pre-tax income of $665 million. The effective tax rates were 22.4% and 22.9% for the three months ended June 30, 2023 and 2022, respectively.

For the three months ended June 30, 2023, the effective tax rate was higher than the statutory rate of 21% primarily due to state tax expense. For the same period in 2022, the effective tax rate was higher than the statutory rate of 21% primarily due to state tax expense, partially offset by tax benefit resulting from the release of valuation allowance on state net operating losses.

Management's discussion of the results of operations for the six months ended June 30, 2023 and 2022

Electricity Prices

The following table summarizes average on peak power prices for each of the major markets in which NRG operates for the six months ended June 30, 2023 and 2022. Texas, East and MISO average on-peak power prices decreased for the six months ended June 30, 2023 as compared to the same period in 2022 as a result of lower natural gas prices, while average CAISO on-peak power prices increased primarily driven by colder winter weather in California in 2023.

	Average on Peak Power Price ($/MWh)		
	Six months ended June 30,		
Region	2023	2022	Change %
Texas			
ERCOT - Houston [(a)]	$ 41.76	$ 87.50	(52)%
ERCOT - North[(a)]	40.37	62.70	(36)%
East			
NY J/NYC[(b)]	$ 38.71	$ 92.79	(58)%
NEPOOL[(b)]	42.59	94.88	(55)%
COMED (PJM)[(b)]	29.89	64.73	(54)%
PJM West Hub[(b)]	35.95	75.66	(52)%
West			
MISO - Louisiana Hub[(b)]	$ 32.54	$ 67.73	(52)%
CAISO - SP15[(b)]	61.27	52.77	16 %

(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

Natural Gas Prices

The following table summarizes the average Henry Hub natural gas price for the six months ended June 30, 2023 and 2022.

	Six months ended June 30,		
	2023	2022	Change %
($/MMBtu)	$ 2.76	$ 6.06	(54)%

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 chief operating decision maker. Economic gross margin is defined as the sum of energy revenue, capacity revenue, retail revenue and other revenue, less cost of fuel, purchased energy and other cost of sales. Economic gross margin does not include mark-to-market gains or losses on economic hedging activities, contract and emissions credit amortization, depreciation and amortization, operations and maintenance, or other cost of operations.

The below tables present the composition and reconciliation of gross margin and economic gross margin for the six months ended June 30, 2023 and 2022:

	Six months ended June 30, 2023					
($ In millions)	Texas	East	West/Services/ Other	Vivint Smart Home[(a)]	Corporate/ Eliminations	Total
Retail revenue	$ 4,353	$ 6,374	$ 2,071	$ 592	$ —	$ 13,390
Energy revenue	20	102	88	—	1	211
Capacity revenue	—	90	1	—	—	91
Mark-to-market for economic hedging activities	—	87	90	—	(11)	166
Contract amortization	—	(18)	(1)	—	—	(19)
Other revenue[(b)]	176	44	17	—	(6)	231
Total revenue	4,549	6,679	2,266	592	(16)	14,070
Cost of fuel	(296)	(38)	(56)	—	—	(390)
Purchased energy and other cost of sales[(c)(d)(e)]	(2,658)	(5,706)	(1,871)	(52)	3	(10,284)
Mark-to-market for economic hedging activities	463	(1,994)	(526)	—	11	(2,046)
Contract and emission credit amortization	(4)	(81)	(5)	—	—	(90)
Depreciation and amortization	(148)	(60)	(47)	$ (232)	(18)	(505)
Gross margin	**$ 1,906**	**$ (1,200)**	**$ (239)**	**$ 308**	**$ (20)**	**$ 755**
Less: Mark-to-market for economic hedging activities, net	463	(1,907)	(436)	—	—	(1,880)
Less: Contract and emission credit amortization, net	(4)	(99)	(6)	—	—	(109)
Less: Depreciation and amortization	(148)	(60)	(47)	(232)	(18)	(505)
Economic gross margin	**$ 1,595**	**$ 866**	**$ 250**	**$ 540**	**$ (2)**	**$ 3,249**

(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 $1.3 billion, $105 million and $598 million 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
Retail sales						
Home electricity sales volume (GWh)	17,413	5,868	1,145	—	—	24,426
Business electricity sales volume (GWh)	18,596	21,842	4,675	—	—	45,113
Home natural gas sales volume (MDth)	—	30,111	48,315	—	—	78,426
Business natural gas sales volume (MDth)	—	823,128	93,058	—	—	916,186
Average retail Home customer count (in thousands)[(a)]	2,868	1,810	781	—	—	5,459
Ending retail Home customer count (in thousands)[(a)]	2,869	1,858	772	—	—	5,499
Average Vivint Smart Home subscriber count (in thousands)[(b)]	—	—	—	1,958	—	1,958
Ending Vivint Smart Home subscriber count (in thousands)[(b)]	—	—	—	2,004	—	2,004
Power generation						
GWh sold	12,694	1,882	2,869	—	—	17,445
GWh generated[(c)]						
Coal	5,771	366	—	—	—	6,137
Gas	2,410	85	2,867	—	—	5,362
Nuclear	4,513	—	—	—	—	4,513
Renewables	—	—	2	—	—	2
Total	12,694	451	2,869	—	—	16,014

(a) Home customer count includes recurring residential customers, services customers and municipal aggregations

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

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

($ In millions)	Six months ended June 30, 2022 Texas	East	West/Services/ Other	Corporate/ Eliminations	Total
Retail revenue	$ 4,511	$ 7,921	$ 2,090	$ (1)	$ 14,521
Energy revenue	53	332	185	14	584
Capacity revenue	—	204	2	—	206
Mark-to-market for economic hedging activities	(3)	(236)	(56)	14	(281)
Contract amortization	—	(20)	(2)	—	(22)
Other revenue[(a)]	151	28	1	(10)	170
Total revenue	4,712	8,229	2,220	17	15,178
Cost of fuel	(529)	(175)	(157)	—	(861)
Purchased energy and other cost of sales[(b)(c)(d)]	(2,967)	(7,431)	(1,860)	(5)	(12,263)
Mark-to-market for economic hedging activities	1,262	1,818	211	(14)	3,277
Contract and emission credit amortization	4	(102)	(5)	—	(103)
Depreciation and amortization	(154)	(127)	(43)	(16)	(340)
Gross margin	**$ 2,328**	**$ 2,212**	**$ 366**	**$ (18)**	**$ 4,888**
Less: Mark-to-market for economic hedging activities, net	1,259	1,582	155	—	2,996
Less: Contract and emission credit amortization, net	4	(122)	(7)	—	(125)
Less: Depreciation and amortization	(154)	(127)	(43)	(16)	(340)
Economic gross margin	**$ 1,219**	**$ 879**	**$ 261**	**$ (2)**	**$ 2,357**

(a) Includes trading gains and losses and ancillary revenues

(b) Includes capacity and emissions credits

(c) Includes $1.5 billion, $111 million and $664 million of TDSP expense in Texas, East and West/Services/Other, respectively

(d) Excludes depreciation and amortization shown separately

Business Metrics	Texas	East	West/Services/ Other	Corporate/ Eliminations	Total
Retail sales					
Home electricity sales volume (GWh)	20,826	6,460	1,096	—	28,382
Business electricity sales volume (GWh)	18,853	24,358	4,559	—	47,770
Home natural gas sales volume (MDth)	—	31,211	53,618	—	84,829
Business natural gas sales volume (MDth)	—	874,430	79,794	—	954,224
Average retail Home customer count (in thousands)[(a)]	3,006	1,781	803	—	5,590
Ending retail Home customer count (in thousands)[(a)]	2,994	1,808	799	—	5,601
Power generation					
GWh sold	18,056	5,827	3,372	—	27,255
GWh generated[(b)]					
Coal	9,316	3,827	—	—	13,143
Gas	3,669	152	3,376	—	7,197
Nuclear	5,071	—	—	—	5,071
Renewables	—	—	5	—	5
Total	18,056	3,979	3,381	—	25,416

(a) Home customer count includes recurring residential customers, services customers and municipal aggregations

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

The table below represents the weather metrics for the six months ended June 30, 2023 and 2022:

Weather Metrics	Six months ended June 30, Texas	East	West/Services/ Other[b]
2023			
CDDs[a]	1,144	327	575
HDDs[a]	856	2,570	1,413
2022			
CDDs	1,351	393	705
HDDs	1,202	2,890	1,344
10-year average			
CDDs	1,088	396	602
HDDs	1,045	3,072	1,281

(a) National Oceanic and Atmospheric Administration-Climate Prediction Center - A Cooling Degree Day, or CDD, represents the number of degrees that the mean temperature for a particular day is above 65 degrees Fahrenheit in each region. A Heating Degree Day, or 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

(b) 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

Gross Margin and Economic Gross Margin

Gross margin decreased $4.1 billion and economic gross margin increased $892 million, both of which include intercompany sales, during the six months ended June 30, 2023, compared to the same period in 2022.

The tables below describe the changes in gross margin and economic gross margin by segment:

Texas

	(In millions)
Higher gross margin due to the net effect of: • increased net revenue rates of $6.50 per MWh, or $317 million, primarily driven by changes in customer term, product and mix; and • a $202 million decrease in cost to serve the retail load, primarily driven by lower supply costs which were a result of lower power pricing, the diversified supply strategy and improved plant performance coupled with the 2022 impact of the W.A. Parish Unit 8 extended outage that began in May 2022	$ 519
Lower gross margin due to a decrease in load of 1.4 TWh, or $90 million, driven by attrition and changes in customer mix, and a decrease in load of 2.2 TWh, or $78 million, from weather	(168)
Higher gross margin due to market optimization activities	29
Other	(4)
Increase in economic gross margin	**$ 376**
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges	(796)
Increase in contract and emission credit amortization	(8)
Decrease in depreciation and amortization	6
Decrease in gross margin	**$ (422)**

East

		(In millions)
Lower gross margin due to a decrease in generation and capacity as a result of asset retirements	$	(84)
Higher electric gross margin due to higher net revenue rates as a result of changes in customer term, product and mix of $8.75 per MWh, or $241 million, partially offset by higher supply costs of $2.75 per MWh, or $73 million, driven primarily by increases in power prices		168
Lower electric gross margin of $10 million from a decrease in volumes due to changes in customer mix, as well as a $7 million decrease in load of 353,000 MWh from weather		(17)
Lower natural gas gross margin from a decrease in volumes due to weather and changes in customer mix		(27)
Lower gross margin primarily due to a 61% decrease in PJM capacity prices and a 19% decrease in PJM capacity volumes		(53)
Higher gross margin due to a decrease in supply costs at Midwest Generation, offset by lower gross margin as a result of an 84% decrease in generation volumes due to dark spread contractions		7
Other		(7)
Decrease in economic gross margin	**$**	**(13)**
Decrease in mark-to-market for economic hedging primarily due to net unrealized gains/losses on open positions related to economic hedges		(3,489)
Decrease in contract amortization		23
Decrease in depreciation and amortization		67
Decrease in gross margin	**$**	**(3,412)**

West/Services/Other

		(In millions)
Lower gross margin primarily due to lower Services sales	$	(19)
Lower electric gross margin due to an increase in supply rate of $21.50 per MWh, or $126 million, partially offset by higher revenue rate of $17.75 per MWh, or $104 million, and an increase in volumes due to increased customer count and changes in customer mix of $8 million		(14)
Lower natural gas gross margin due to lower revenue rates of $0.20 per Dth, totaling $28 million, partially offset by higher supply rates of $0.15 per Dth, or $20 million, and an increase in volumes due to changes in customer mix of $3 million		(5)
Higher gross margin at Cottonwood was driven by reduced commodity costs partially offset by lower average realized prices and lower volumes associated with the current year planned outage		14
Higher gross margin from market optimization activities		14
Other		(1)
Decrease in economic gross margin	**$**	**(11)**
Decrease in mark-to-market for economic hedges primarily due to net unrealized gains/losses on open positions related to economic hedges		(591)
Decrease in contract amortization		1
Increase in depreciation and amortization		(4)
Decrease in gross margin	**$**	**(605)**

Vivint Smart Home[(a)]

		(In millions)
Increase due to the acquisition of Vivint Smart Home	$	540
Increase in economic gross margin	**$**	**540**
Increase in depreciation and amortization		(232)
Increase in gross margin	**$**	**308**

(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 decreased by $4.9 billion during the six months ended June 30, 2023, compared to the same period in 2022.

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

	Six months ended June 30, 2023				
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Eliminations**	**Total**
Mark-to-market results in revenue					
Reversal of previously recognized unrealized (gains)/losses on settled positions related to economic hedges	$ —	$ (15)	$ 26	$ (6)	$ 5
Reversal of acquired (gain) positions related to economic hedges	—	(1)	—	—	(1)
Net unrealized gains on open positions related to economic hedges	—	103	64	(5)	162
Total mark-to-market gains in revenue	$ —	$ 87	$ 90	$ (11)	$ 166
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	$ (118)	$ (555)	$ (335)	$ 6	$ (1,002)
Reversal of acquired loss/(gain) positions related to economic hedges	18	(8)	1	—	11
Net unrealized gains/(losses) on open positions related to economic hedges	563	(1,431)	(192)	5	(1,055)
Total mark-to-market gains/(losses) in operating costs and expenses	$ 463	$ (1,994)	$ (526)	$ 11	$ (2,046)

	Six months ended June 30, 2022				
(In millions)	**Texas**	**East**	**West/Services/ Other**	**Eliminations**	**Total**
Mark-to-market results in revenue					
Reversal of previously recognized unrealized losses/(gains) on settled positions related to economic hedges	$ 1	$ (21)	$ 36	$ (4)	$ 12
Reversal of acquired loss positions related to economic hedges	—	1	—	—	1
Net unrealized (losses) on open positions related to economic hedges	(4)	(216)	(92)	18	(294)
Total mark-to-market losses in revenue	$ (3)	$ (236)	$ (56)	$ 14	$ (281)
Mark-to-market results in operating costs and expenses					
Reversal of previously recognized unrealized (gains) on settled positions related to economic hedges	$ (145)	$ (396)	$ (80)	$ 4	$ (617)
Reversal of acquired loss/(gain) positions related to economic hedges	31	(43)	(1)	—	(13)
Net unrealized gains on open positions related to economic hedges	1,376	2,257	292	(18)	3,907
Total mark-to-market gains in operating costs and expenses	$ 1,262	$ 1,818	$ 211	$ (14)	$ 3,277

Mark-to-market results consist of unrealized gains and losses on contracts that are not yet settled. The settlement of these transactions is reflected in the same revenue or cost caption as the items being hedged.

For the six months ended June 30, 2023, the $166 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 and natural gas prices. The $2.0 billion loss in operating costs and expenses from economic hedge positions was driven primarily by a decrease in the value of East and West open positions as a result of decreases in natural gas and power prices, as well as the reversal of previously recognized unrealized gains on contracts that settled during the period. This was partially offset by an increase in the value of Texas open positions as a result of increase in ERCOT power prices and the reversal of acquired loss positions.

For the six months ended June 30, 2022, the $281 million loss in revenues from economic hedge positions was driven by a decrease in the value of open positions as a result of increases in PJM power prices, partially offset by the reversal of previously recognized unrealized losses on contracts that settled during the period. The $3.3 billion gain in operating costs and expenses from economic hedge positions was driven primarily by an increase in the value of open positions as a result of increases in natural gas and power prices across all segments, partially offset by the reversal of previously recognized unrealized gains on contracts that settled during the period.

In accordance with ASC 815, the following table represents the results of the Company's financial and physical trading of energy commodities for the six months ended June 30, 2023 and 2022. The realized and unrealized financial and physical trading results are included in revenue. The Company's trading activities are subject to limits based on the Company's Risk Management Policy.

	Six months ended June 30,	
(In millions)	**2023**	**2022**
Trading (losses)/gains		
Realized	$ (3)	$ 2
Unrealized	25	(16)
Total trading gains/(losses)	$ 22	$ (14)

Operations and Maintenance Expense

Operations and maintenance expense are comprised of the following:

(In millions)	**Texas**	**East**	**West/Services/ Other**	**Vivint Smart Home[(a)]**	**Eliminations**	**Total**
Six months ended June 30, 2023	$ 382	$ 168	$ 126	$ 72	$ (2)	$ 746
Six months ended June 30, 2022	385	214	93	—	(2)	690

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

Operations and maintenance expense increased by $56 million for the six months ended June 30, 2023, compared to the same period in 2022, due to the following:

	(In millions)
Increase due to the acquisition of Vivint Smart Home	$ 72
Increase in major maintenance expenditures associated with the timing of planned outages at STP and the scope and duration of outages at Texas gas facilities, Midwest Generation and Cottonwood	63
Increase driven by higher retail operations costs	13
Decrease due to the current year partial property insurance claim for the extended outage at W.A. Parish, partially offset by the cost of restoration efforts	(41)
Decrease in variable operation and maintenance expense due to a reduction in PJM generation volumes in 2023	(19)
Decrease due to change in estimates of environmental remediation costs at deactivated sites in the East in 2022	(17)
Decrease driven primarily by East asset retirements partially offset by an increase in deactivation costs in the West	(13)
Other	(2)
Increase in operations and maintenance expense	$ 56

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**
Six months ended June 30, 2023	$ 111	$ 66	$ 6	$ 1	$ 184
Six months ended June 30, 2022	93	75	9	—	177

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

Other cost of operations increased by $7 million for the six months ended June 30, 2023, compared to the same period in 2022, due to the following:

	(In millions)
Increase due to higher property insurance premiums and property taxes	$ 20
Decrease primarily due to changes in timing of ARO spend at Midwest Generation	(10)
Decrease in retail gross receipt taxes due to lower revenues	(5)
Other	2
Increase in other cost of operations	$ 7

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
Six months ended June 30, 2023	$ 148	$ 60	$ 47	$ 232	$ 18	$ 505
Six months ended June 30, 2022	154	127	43	—	16	340

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

Depreciation and amortization increased by $165 million for the six months ended June 30, 2023, compared to the same period in 2022, primarily due to higher amortization of intangible assets due to the acquisition of Vivint Smart Home in March 2023, partially offset by lower depreciation at Midwest Generation as a result of asset impairments and retirements in 2022.

Impairment Losses

Impairment losses of $155 million were recorded during the six months ended June 30, 2022 primarily related to impairments at Midwest Generation due to the decline in PJM capacity prices and the planned retirement of Joliet. For further discussion, see Note 8, *Impairments*.

Selling, General and Administrative Costs

Selling, general and administrative costs comprised of the following:

(In millions)	Texas	East	West/Services/ Other	Vivint Smart Home[(a)]	Corporate	Total
Six months ended June 30, 2023	$ 343	$ 285	$ 105	$ 203	$ 12	$ 948
Six months ended June 30, 2022	310	247	115	—	26	698

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

Total selling, general and administrative costs increased by $250 million for the six months ended June 30, 2023, compared to the same period in 2022, due to the following:

	(In millions)
Increase due to Vivint Smart Home acquisition	$ 203
Increase due to higher personnel costs	36
Increase in broker fee and commissions expenses	18
Increase due to higher provision for credit losses	18
Decrease due to lower consulting and legal expenses	(17)
Decrease in marketing and media expenses	(4)
Other	(4)
Increase in selling, general and administrative costs	$ 250

Acquisition-Related Transaction and Integration Costs

Acquisition-related transaction and integration costs were $93 million for the six months ended June 30, 2023, which consisted of $38 million of acquisition costs and $44 million of integration costs related to Vivint Smart Home, as well as $11 million of integration costs primarily related to Direct Energy. Acquisition-related transaction and integration costs were $18 million for the six months ended June 30, 2022, which were primarily integration costs related to Direct Energy.

Gain on Sale of Assets

The gain on sale of assets of $202 million and $29 million for the six months ended June 30, 2023 and 2022, respectively, include:

(In millions)	Six months ended June 30, 2023	2022
Sale of Astoria Turbines in January 2023	$ 199	$ —
Sale of the Company's 49% ownership in the Watson natural gas generating facility	—	46
Other asset sales	3	(17)
Gain on sale of assets	$ 202	$ 29

Other Income, Net

Other income, net increased by $17 million in the six months ended June 30, 2023, compared to the same period in 2022, primarily driven by higher interest income.

Interest Expense

Interest expense increased by $91 million for the six months ended June 30, 2023, compared to the same period in 2022, primarily due to the Vivint Smart Home acquisition including the impact of newly issued Senior Secured First Lien Notes, acquired debt of Vivint Smart Home, borrowings on the Revolving Credit Facility and the Receivables Securitization Facilities, as well as the write-off of the deferred financing costs associated with the cancellation of the bridge facility for the Vivint Smart Home acquisition.

Income Tax Expense/(Benefit)

For the six months ended June 30, 2023, an income tax benefit of $247 million was recorded on pre-tax loss of $1.3 billion. For the same period in 2022, income tax expense of $723 million was recorded on pre-tax income of $3.0 billion. The effective tax rates were 19.4% and 24.3% for the six months ended June 30, 2023 and 2022, respectively.

For the six months ended June 30, 2023, NRG's overall effective tax rate was lower than the statutory rate of 21%, primarily due to current state tax expense which has an inverted effect and reduces the overall effective tax rate when applied to year-to-date financial statement losses. For the same period in 2022, NRG's overall effective tax rate was higher than the statutory rate of 21%, primarily due to state tax expense, partially offset by tax benefit resulting from the release of valuation allowance on state net operating losses.

Liquidity and Capital Resources

Liquidity Position

As of June 30, 2023 and December 31, 2022, NRG's total liquidity, excluding funds deposited by counterparties, of approximately $4.5 billion and $2.8 billion, respectively, was comprised of the following:

(In millions)	June 30, 2023	December 31, 2022
Cash and cash equivalents	$ 422	$ 430
Restricted cash - operating	2	5
Restricted cash - reserves	24	35
Total	448	470
Total availability under Revolving Credit Facility and collective collateral facilities[(a)]	4,067	2,324
Total liquidity, excluding funds deposited by counterparties	$ 4,515	$ 2,794

(a) Total capacity of Revolving Credit Facility and collective collateral facilities was $7.8 billion and $6.4 billion as of June 30, 2023 and December 31, 2022, respectively

For the six months ended June 30, 2023, total liquidity, excluding funds deposited by counterparties, increased by $1.7 billion. Changes in cash and cash equivalent balances are further discussed hereinafter under the heading *Cash Flow Discussion*. Cash and cash equivalents at June 30, 2023 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. 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 Company remains committed to maintaining a strong balance sheet and continues to work to achieve investment grade credit metrics over time primarily through debt reduction and the realization of growth initiatives.

Credit Ratings

On March 1, 2023, following the Vivint Smart Home acquisition financing launch, Standard and Poor's downgraded the Company's issuer credit to BB with a Stable outlook from BB+. There was no change to Moody's and Fitch ratings at the time.

Liquidity

The principal sources of liquidity for NRG's future operating and maintenance capital expenditures are expected to be derived from cash on hand, cash flows from operations, and financing arrangements. As described in Note 9, *Long-term Debt and Finance Leases*, to this Form 10-Q, 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. As part of the acquisition of Vivint Smart Home on March 10, 2023, NRG acquired Vivint Smart Home's existing debt, which includes senior secured notes, senior notes and a senior secured term-loan.

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 in Note 9, *Long-term Debt and Finance Leases;* (iii) capital expenditures, including maintenance, repowering, development, and environmental; and (iv) allocations in connection with acquisition opportunities, debt repayments, share repurchases and dividend payments to stockholders, as described in Note 11, *Changes in Capital Structure*.

Planned sale of the 44% equity interest in STP

On May 31, 2023, the Company entered into a definitive equity purchase agreement to sell its 44% equity interest in STP to Constellation for $1.75 billion, subject to customary purchase price adjustments. The transaction is expected to close by the end of 2023 and is subject to regulatory approval by the NRC. The waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, expired in July 2023. For further discussion, see Note 4, *Acquisitions and Dispositions*.

Debt Reduction

The Company plans to reduce debt by $900 million during 2023 as part of its plan to achieve target investment-grade credit metrics, and intends to fund the reduction from cash from operations. NRG plans an additional $500 million of debt reduction subsequent to the planned sale of STP as the transaction is intended to be leverage neutral. As of July 31, 2023, the Company executed $200 million in debt reduction.

Vivint Smart Home Acquisition

On March 10, 2023, the Company completed the acquisition of Vivint Smart Home. The Company paid $12 per share, or $2.6 billion in cash. The Company funded the acquisition using a combination of $740 million in newly-issued secured corporate debt, $650 million in newly-issued preferred stock, $900 million drawn from its Revolving Credit Facility and Receivables Facilities, and cash on hand.

Issuance of 2033 Senior Notes

On March 9, 2023, the Company issued $740 million of aggregate principal amount of 7.000% senior notes due 2033. The 2033 Senior Notes are senior secured obligations of NRG and are guaranteed by certain of its subsidiaries. Interest is paid semi-annually beginning on September 15, 2023 until the maturity date of March 15, 2033. See Note 9, *Long-term Debt and Finance Leases,* for further discussion.

Series A Preferred Stock

On March 9, 2023, the Company issued 650,000 shares of 10.25% Series A Fixed-Rate Reset Cumulative Redeemable Perpetual Preferred Stock. See Note 11, *Changes in Capital Structure,* for further discussion.

Revolving Credit Facility

On February 14, 2023, the Company amended its Revolving Credit Facility to: (i) increase the existing revolving commitments thereunder by $600 million (the "Incremental Commitment"), (ii) extend the maturity date of a portion of the revolving commitments thereunder to February 14, 2028, (iii) transition the benchmark rate applicable to revolving loans from LIBOR to SOFR and (iv) make certain other amendments to the terms of the Revolving Credit Facility for purposes of, among other things, providing additional flexibility.

On March 13, 2023, the Company further amended its Revolving Credit Facility to increase the existing revolving commitments by an additional $45 million. As of June 30, 2023, there were outstanding borrowings of $700 million and there were $823 million in letters of credit issued under the Revolving Credit Facility. As of July 31, 2023, there were outstanding borrowings of $700 million and $879 million in letters of credit issued under the Revolving Credit Facility.

Receivables Securitization Facilities

On June 22, 2023, NRG Receivables amended its existing Receivables Facility to, among other things, (i) extend the scheduled termination date to June 21, 2024, (ii) increase the aggregate commitments from $1.0 billion to $1.4 billion (adjusted seasonally) and (iii) add a new originator. As of June 30, 2023, there were no outstanding borrowings and there were $842 million in letters of credit issued.

In addition, in connection with the amendments to the Receivables Facility, on June 22, 2023, the Company and the originators thereunder renewed the existing uncommitted Repurchase Facility that provides short-term financing secured by a subordinated note issued by NRG Receivables LLC. Such renewal, among other things, extends the maturity date to June 21, 2024 and joins an additional originator to the Repurchase Facility. As of June 30, 2023, there were no outstanding borrowings.

Bilateral Letter of Credit Facilities

On May 19, 2023 and May 30, 2023, the Company increased the size of its bilateral letter of credit facilities by $25 million and $100 million, respectively, to provide additional liquidity, allowing for the issuance of up to $800 million of letters of credit. These facilities are uncommitted. As of June 30, 2023, $589 million was issued under these facilities.

Sale of Astoria

On January 6, 2023, the Company closed on the sale of land and related assets from the Astoria site, within the East region of operations, for initial proceeds of $212 million, subject to transaction fees of $3 million and certain indemnifications. As part of the transaction, NRG entered into an agreement to lease the land back for the purpose of operating the Astoria gas turbines. The lease agreement is expected to terminate by the end of the year after decommissioning is complete.

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 energy before receiving retail revenues); and (iv) initial collateral for large structured transactions. As of June 30, 2023, the Company had total cash collateral outstanding of $270 million and $3.8 billion outstanding in letters of credit to third parties primarily to support its market activities. As of June 30, 2023, total funds deposited by counterparties were $365 million in cash and $407 million of letters of credit.

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 depend on the Company's credit ratings and general perception of its creditworthiness.

First Lien Structure

NRG has granted 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 differ from the hedged prices. As of June 30, 2023, all hedges under the first liens were out-of-the-money on a counterparty aggregate basis.

The following table summarizes the amount of MW hedged against the Company's coal and nuclear assets and as a percentage relative to the Company's coal and nuclear capacity under the first lien structure as of June 30, 2023:

Equivalent Net Sales Secured by First Lien Structure[(a)]	**2023**
In MW	341
As a percentage of total net coal and nuclear capacity[(b)]	8%

(a) Equivalent Net Sales include natural gas swaps converted using a weighted average heat rate by region

(b) Net coal and nuclear capacity represents 80% of the Company’s total coal and nuclear assets eligible under the first lien, which excludes coal assets acquired with Midwest Generation and NRG's assets that have project level financing

Capital Expenditures, Investments and Integration

The following table and descriptions summarize the Company's maintenance capital expenditures, environmental capital expenditures, and investments and integration spend for the six months ended June 30, 2023, and the estimated forecast for the remainder of the year.

(In millions)	**Maintenance**	**Environmental**	**Investments and Integration**[a]	**Total**
Texas	$ 248	$ —	$ 27	$ 275
East	—	—	1	1
West/Services/Other	13	—	4	17
Corporate	7	—	17	24
Vivint Smart Home[b]	7	—	—	7
Total cash capital expenditures for the six months ended June 30, 2023	275	—	49	324
Integration operating expenses[c]	—	—	40	40
Investments	—	—	70	70
Total cash capital expenditures and investments for the six months ended June 30, 2023	$ 275	$ —	$ 159	$ 434
Estimated cash capital expenditures and investments for the remainder of 2023[d]	275	13	211	499
Estimated full year 2023 cash capital expenditures and investments	$ 550	$ 13	$ 370	$ 933

(a) Full year estimate reflects the cash expected to be available for allocation for investments and Vivint Smart Home integration in 2023
(b) Includes expenditures following the acquisition date of March 10, 2023
(c) Excludes equity compensation related to integration
(d) Estimated capital expenditures related to W.A. Parish do not reflect expected insurance recoveries

Investments and Integration for the six months ended June 30, 2023 include growth expenditures, integration, small book acquisitions and other investments.

Environmental Capital Expenditures

NRG estimates that environmental capital expenditures from 2023 through 2027 required to comply with environmental laws will be approximately $45 million, primarily driven by the cost of complying with ELG at the Company's coal units in Texas.

Share Repurchases

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. During July 2023, the Company purchased 1,322,141 shares for $50 million at an average price of $37.82 under the $2.7 billion authorization.

Common Stock Dividends

During the first quarter of 2023, NRG increased the annual dividend to $1.51 from $1.40 per share and expects to target an annual dividend growth rate of 7%-9% per share in subsequent years. A quarterly dividend of $0.3775 per share was paid on the Company's common stock during the three months ended June 30, 2023. On July 17, 2023, NRG declared a quarterly dividend on the Company's common stock of $0.3775 per share, payable on August 15, 2023 to stockholders of record as of August 1, 2023.

Obligations under Certain 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 Note 27, *Guarantees,* to the Company's 2022 Form 10-K.

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. NRG's pro-rata share of non-recourse debt was approximately $471 million as of June 30, 2023. This indebtedness may restrict the ability of Ivanpah to issue dividends or distributions to NRG.

Contractual Obligations and Market Commitments

NRG has a variety of contractual obligations and other market commitments that represent prospective cash requirements in addition to the Company's capital expenditure programs, as disclosed in the Company's 2022 Form 10-K. See also Note 9, *Long-term Debt and Finance Leases*, and Note 16, *Commitments and Contingencies*, to this Form 10-Q for a discussion of new commitments and contingencies that also include contractual obligations and market commitments that occurred during the three and six months ended June 30, 2023.

Cash Flow Discussion

The following table reflects the changes in cash flows for the comparative six month periods:

	Six months ended June 30,		
(In millions)	**2023**	**2022**	**Change**
Cash (used)/provided by operating activities	$ (1,028)	$ 3,189	$ (4,217)
Cash used by investing activities	(2,502)	(119)	(2,383)
Cash provided by financing activities	2,162	414	1,748

Cash (used)/provided by operating activities

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

	(In millions)
Changes in cash collateral in support of risk management activities due to change in commodity prices	$ (4,476)
Increase in operating loss/income adjusted for other non-cash items	1,121
Decrease due to receipt of uplift securitization proceeds from ERCOT in 2022	(689)
Decrease in working capital related to prepayments and other current assets primarily due to increased capitalized contract costs and FTR activity	(104)
Decrease in working capital primarily due to lower gas and power market pricing coupled with lower gas volumes	(56)
Decrease in other working capital	(13)
	$ (4,217)

Cash used by investing activities

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

	(In millions)
Increase in cash paid for acquisitions primarily due to the acquisition of Vivint Smart Home in March 2023	$ (2,445)
Increase in capital expenditures	(174)
Increase in proceeds from sale of assets primarily due to the sale of the land and related assets from the Astoria site in January 2023	133
Increase from insurance proceeds for property, plant and equipment, net in 2023	121
Decrease in proceeds from sales of investments in nuclear decommissioning trust fund securities, net of purchases	(12)
Decrease in proceeds from sales of emissions allowances, net of purchases	(6)
	$ (2,383)

Cash provided by financing activities

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

	(In millions)
Increase in proceeds from issuance of long-term debt in 2023	$ 731
Increase in proceeds from Revolving Credit Facility in 2023	700
Increase in proceeds from issuance of preferred stock in 2023	635
Decrease in net receipts from settlement of acquired derivatives	(632)
Increase due to lower payments for share repurchase activity in 2023	350
Increase in payments of deferred issuance costs	(22)
Decrease due to repayments of long-term debt and finance leases	(8)
Increase in payments of dividends to common stockholders	(6)
	$ 1,748

NOLs, Deferred Tax Assets and Uncertain Tax Position Implications, under ASC 740

For the six months ended June 30, 2023, the Company had domestic pre-tax book loss of $1.1 billion and foreign pre-tax book loss of $159 million. As of December 31, 2022, the Company had cumulative U.S. Federal NOL carryforwards of $8.2 billion, which do not have an expiration date, and cumulative state NOL carryforwards of $5.3 billion for financial statement purposes. NRG also has cumulative foreign NOL carryforwards of $382 million, most of which do not have an expiration date. In addition to the above NOLs, NRG has a $270 million indefinite carryforward for interest deductions, as well as $393 million of tax credits to be utilized in future years. In connection with the Vivint Smart Home acquisition, additional federal and state NOLs of $2.1 billion and $1.8 billion, respectively, were added, as well as a federal carryforward for interest deductions of $739 million. 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 net income tax payments due to federal, state and foreign jurisdictions of up to $60 million in 2023.

As of June 30, 2023, the Company has $43 million of tax-effected uncertain federal and state tax benefits, for which the Company has recorded a non-current tax liability of $45 million (inclusive of accrued interest) until final resolution is reached with the related taxing authority.

The Company is no longer subject to U.S. federal income tax examinations for years prior to 2019. With few exceptions, state and Canadian income tax examinations are no longer open for years prior to 2014.

Deferred tax assets and valuation allowance

Net deferred tax balance — As of June 30, 2023 and December 31, 2022, NRG recorded a net deferred tax asset, excluding valuation allowance, of $2.8 billion and $2.0 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 June 30, 2023 and December 31, 2022 as discussed below.

NOL Carryforwards — As of June 30, 2023, the Company had a tax-effected cumulative U.S. NOLs consisting of carryforwards for federal and state income tax purposes of $1.7 billion and $315 million, respectively. Additional federal and state NOLs of $446 million and $70 million, respectively, were added with the acquisition of Vivint Smart Home. The Company estimates it will need to generate future taxable income to fully realize the net federal deferred tax asset before the expiration of certain carryforwards commences in 2030. In addition, NRG has tax-effected cumulative foreign NOL carryforwards of $101 million.

Valuation Allowance — As of June 30, 2023 and December 31, 2022, the Company’s tax-effected valuation allowance was $230 million and $224 million, respectively, 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.

Guarantor Financial Information

As of June 30, 2023, the Company's outstanding registered senior notes consisted of $375 million of the 2027 Senior Notes and $821 million of the 2028 Senior Notes as shown in Note 9, *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 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 tables below 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 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)	Six months ended June 30, 2023
Revenues[(a)]	$ 11,789
Operating loss[(b)]	(991)
Total other expense	(196)
Loss from continuing operations before income taxes	(1,187)
Net Loss	(985)

(a) Intercompany transactions with Non-Guarantors of $6 million during the six months ended June 30, 2023

(b) Intercompany transactions with Non-Guarantors including cost of operations of $52 million and selling, general and administrative of $76 million during the six months ended June 30, 2023

The following table presents the summarized balance sheet information:

(In millions)	June 30, 2023
Current assets[(a)]	$ 7,662
Property, plant and equipment, net	1,133
Non-current assets	14,486
Current liabilities[(b)]	8,310
Non-current liabilities	11,746

(a) Includes intercompany receivables due from Non-Guarantors of $67 million as of June 30, 2023

(b) Includes intercompany payables due to Non-Guarantors of $17 million as of June 30, 2023

Fair Value of Derivative Instruments

NRG may enter into power 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 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 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, subscribers 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 subscriber.

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 June 30, 2023, based on their level within the fair value hierarchy defined in ASC 820; and indicate the maturities of contracts at June 30, 2023. For a full discussion of the Company's valuation methodology of its contracts, see *Derivative Fair Value Measurements* in Note 5, *Fair Value of Financial Instruments*.

Derivative Activity Gains/(Losses)	**(In millions)**
Fair Value of Contracts as of December 31, 2022	$ 3,553
Contracts realized or otherwise settled during the period	(976)
Vivint Smart Home contracts acquired during the period	(112)
Changes in fair value	(853)
Fair Value of Contracts as of June 30, 2023	$ 1,612

(In millions)	Fair Value of Contracts as of June 30, 2023				
	Maturity				
Fair Value Hierarchy (Losses)/Gains	1 Year or Less	Greater than 1 Year to 3 Years	Greater than 3 Years to 5 Years	Greater than 5 Years	Total Fair Value
Level 1	$ (67)	$ 223	$ (3)	$ —	$ 153
Level 2	306	274	81	8	669
Level 3	352	219	72	147	790
Total	$ 591	$ 716	$ 150	$ 155	$ 1,612

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 3, *Quantitative and Qualitative Disclosures About Market Risk — Commodity Price Risk*, to this Form 10-Q, 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. NRG's 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 asset and liability position is a better indicator of NRG's hedging activity. As of June 30, 2023, NRG's net derivative asset was $1.6 billion, a decrease to total fair value of $1.9 billion as compared to December 31, 2022. This decrease was primarily driven by roll-off of trades that settled during the period, losses in fair value, and Vivint Smart Home contracts acquired 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 $1.9 billion in the net value of derivatives as of June 30, 2023.

Critical Accounting Estimates

NRG's discussion and analysis of the financial condition and results of operations are based upon the condensed 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 nature of the accounting policies 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 regarding estimates about matters that are inherently uncertain.

The Company's critical accounting estimates are described in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, in the Company's 2022 Form 10-K. There have been no material changes to the Company's critical accounting estimates since the 2022 Form 10-K.

ITEM 3 — 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 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. The following disclosures about market risk provide an update to, and should be read in conjunction with, Item 7A, *Quantitative and Qualitative Disclosures About Market Risk,* of the Company's 2022 Form 10-K.

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 serving 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 energy 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 three and six months ending June 30, 2023 and 2022:

(In millions)	2023	2022
VaR as of June 30,	$ 62	$ 35
Three months ended June 30,		
Average	$ 63	$ 53
Maximum	78	86
Minimum	46	30
Six months ended June 30,		
Average	$ 67	$ 45
Maximum	82	86
Minimum	46	27

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 $195 million, as of June 30, 2023, primarily driven by asset-backed and hedging 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 Note 7, *Accounting for Derivative Instruments and Hedging Activities*, to this Form 10-Q for discussion regarding credit risk contingent features.

Counterparty Credit Risk

The Company's counterparty credit risk policies are disclosed in its 2022 Form 10-K. As of June 30, 2023, counterparty credit exposure, excluding credit exposure from RTOs, ISOs, registered commodity exchanges and certain long-term agreements, was $1.9 billion and NRG held collateral (cash and letters of credit) against those positions of $616 million, resulting in a net exposure of $1.3 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 59% of the Company's exposure before collateral is expected to roll off by the end of 2024. 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 by Industry Sector	Net Exposure[(a)(b)] (% of Total)
Utilities, energy merchants, marketers and other	73 %
Financial institutions	27
Total as of June 30, 2023	100 %

Category by Counterparty Credit Quality	Net Exposure[(a)(b)] (% of Total)
Investment grade	55 %
Non-investment grade/non-rated	45
Total as of June 30, 2023	100 %

(a) Counterparty credit exposure excludes uranium and 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 currently has exposure to one wholesale counterparty in excess of 10% of total net exposure discussed above as of June 30, 2023. 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 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 June 30, 2023, aggregate credit risk exposure managed by NRG to these counterparties was approximately $889 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 as well as through Vivint Smart Home, which serve both 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 non-payment 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 June 30, 2023, 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.

Liquidity Risk

Liquidity risk arises from the general funding needs of the Company's activities and in the management of the Company's assets and liabilities. 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 June 30, 2023, 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 $285 million. This analysis uses simplified assumptions and is calculated based on portfolio composition and margin-related contract provisions as of June 30, 2023.

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 management policies allow the Company to reduce interest rate exposure from variable rate debt obligations. In the first quarter of 2023, the Company entered into $1.0 billion of interest rate swaps through 2027 to hedge the floating rate on the Term Loan acquired with the Vivint Smart Home acquisition. Additionally, the Company has entered into interest rate swaps to hedge the floating rate on the Revolving Credit Facility extending through 2024, with $400 million outstanding as of June 30, 2023.

As of June 30, 2023, the fair value and related carrying value of the Company's debt was $11.2 billion and $12.1 billion, respectively. NRG estimates that a 1% decrease in market interest rates would have increased the fair value of the Company's long-term debt as of June 30, 2023 by $870 million.

Currency Exchange Risk

NRG is subject to transactional exchange rate risk from transactions with customers in countries outside of the United States, 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 June 30, 2023, 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 $590 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 United States 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 June 30, 2023 would have resulted in a decrease of $12 million to net income within the Consolidated Statement of Operations.

ITEM 4 — CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

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 Quarterly Report on Form 10-Q.

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 quarter ended June 30, 2023 that materially affected, or are reasonably likely to materially affect, NRG's internal control over financial reporting.

PART II — OTHER INFORMATION

ITEM 1 — LEGAL PROCEEDINGS

For a discussion of material legal proceedings in which NRG was involved through June 30, 2023, see Note 16, *Commitments and Contingencies*, to this Form 10-Q.

ITEM 1A — RISK FACTORS

During the three months ended June 30, 2023, there were no material changes to the Risk Factors disclosed in Part II, Item 1A, *Risk Factors*, of the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, filed with the SEC on May 4, 2023.

ITEM 2 — UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

During the quarter ended June 30, 2023, no purchases of NRG's common stock were made by or on behalf of NRG or any "affiliated purchaser" (as defined in Rule 10b-18(a)(3) under the Exchange Act).

ITEM 3 — DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4 — MINE SAFETY DISCLOSURES

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

ITEM 5 — OTHER INFORMATION

During the three months ended June 30, 2023, 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 6 — EXHIBITS

Number	Description	Method of Filing
2.1	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.
4.1	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.	Filed herewith.
10.1*	Amendment to the Vivint Smart Home, Inc. 2020 Omnibus Incentive Plan	Filed herewith.
10.2	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.
10.3	Joinder Agreement, dated as of June 22, 2023, by Direct Energy Business Marketing, 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 27, 2023.
22.1	List of Guarantor Subsidiaries	Filed herewith.
31.1	Rule 13a-14(a)/15d-14(a) certification of Mauricio Gutierrez.	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 Emily Picarello.	Filed herewith.
32	Section 1350 Certification.	Furnished herewith.
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.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NRG ENERGY, INC.
(Registrant)

/s/ MAURICIO GUTIERREZ

Mauricio Gutierrez
Chief Executive Officer
(Principal Executive Officer)

/s/ WOO-SUNG CHUNG

Woo-Sung Chung
Chief Financial Officer
(Principal Financial Officer)

/s/ EMILY PICARELLO

Emily Picarello
Corporate Controller
(Principal Accounting Officer)

Date: August 8, 2023