
**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, 2019

— OR —

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

Commission File Number 001-38086

Vistra Energy Corp.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

36-4833255
(I.R.S. Employer Identification No.)

6555 Sierra Drive Irving, Texas 75039
(Address of Principal Executive Offices) (Zip Code)

(214) 812-4600
(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 Each Exchange on Which Registered
Common stock, par value \$0.01 per share	VST	New York Stock Exchange
Warrants	VST.WS.A	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

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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 if the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of July 31, 2019, there were 491,679,984 shares of common stock, par value \$0.01, outstanding of Vistra Energy Corp.

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Vistra Energy Corp.'s (Vistra Energy) annual reports, quarterly reports, current reports and any amendments to those reports are made available to the public, free of charge, on the Vistra Energy website at <http://www.vistraenergy.com>, as soon as reasonably practicable after they have been filed with or furnished to the Securities and Exchange Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended. Additionally, Vistra Energy posts important information, including press releases, investor presentations, sustainability reports, and notices of upcoming events on its website and utilizes its website as a channel of distribution to reach public investors and as a means of disclosing material non-public information for complying with disclosure obligations under Regulation FD. Investors may be notified of posting to the website by signing up for email alerts and RSS feeds on the "Investor Relations" page of Vistra Energy's website. The information on Vistra Energy's website shall not be deemed a part of, or incorporated by reference into, this quarterly report on Form 10-Q. The representations and warranties contained in any agreement that we have filed as an exhibit to this quarterly report on Form 10-Q, or that we have or may publicly file in the future, may contain representations and warranties that may (i) be made by and to the parties thereto at specific dates, (ii) be subject to exceptions and qualifications contained in separate disclosure schedules, (iii) represent the parties' risk allocation in the particular transaction, or (iv) be qualified by materiality standards that differ from what may be viewed as material for securities law purposes.

This quarterly report on Form 10-Q and other Securities and Exchange Commission filings of Vistra Energy and its subsidiaries occasionally make references to Vistra Energy (or "we," "our," "us" or "the Company"), Luminant, TXU Energy, Value Based Brands LLC, Dynege Energy Services or Homefield Energy when describing actions, rights or obligations of their respective subsidiaries. These references reflect the fact that the subsidiaries are consolidated with, or otherwise reflected in, their respective parent company's financial statements for financial reporting purposes. However, these references should not be interpreted to imply that the parent company is actually undertaking the action or has the rights or obligations of the relevant subsidiary company or vice versa.

GLOSSARY

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

ARO	asset retirement and mining reclamation obligation
CAA	Clean Air Act
CAISO	The California Independent System Operator
CCGT	combined cycle gas turbine
CME	Chicago Mercantile Exchange
CO₂	carbon dioxide
CPUC	California Public Utilities Commission
Crius	Crius Energy Trust and/or its subsidiaries, depending on context
Dynegy	Dynegy Inc., and/or its subsidiaries, depending on context
Dynegy Energy Services	Dynegy Energy Services, LLC and Dynegy Energy Services (East), LLC (d/b/a Dynegy and Brighten Energy), indirect, wholly owned subsidiaries of Vistra Energy, that are REPs in certain areas of MISO and PJM, respectively, and are engaged in the retail sale of electricity to residential and business customers.
EBITDA	earnings (net income) before interest expense, income taxes, depreciation and amortization
Effective Date	October 3, 2016, the date our predecessor completed its reorganization under Chapter 11 of the U.S. Bankruptcy Code
Emergence	emergence of our predecessor from reorganization under Chapter 11 of the U.S. Bankruptcy Code as subsidiaries of a newly formed company, Vistra Energy, on the Effective Date
EPA	U.S. Environmental Protection Agency
ERCOT	Electric Reliability Council of Texas, Inc.
ESS	energy storage system
Exchange Act	Securities Exchange Act of 1934, as amended
FERC	U.S. Federal Energy Regulatory Commission
GAAP	generally accepted accounting principles
GWh	gigawatt-hours
Homefield Energy	Illinois Power Marketing Company (d/b/a Homefield Energy), an indirect, wholly owned subsidiary of Vistra Energy, a REP in certain areas of MISO that is engaged in the retail sale of electricity to municipal customers
ICE	IntercontinentalExchange
IRS	U.S. Internal Revenue Service
ISO	Independent System Operator
ISO-NE	Independent System Operator New England
LIBOR	London Interbank Offered Rate, an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market
load	demand for electricity
LTSA	long-term service agreements for plant maintenance
Luminant	subsidiaries of Vistra Energy engaged in competitive market activities consisting of electricity generation and wholesale energy sales and purchases as well as commodity risk management
market heat rate	Heat rate is a measure of the efficiency of converting a fuel source to electricity. Market heat rate is the implied relationship between wholesale electricity prices and natural gas prices and is calculated by dividing the wholesale market price of electricity, which is based on the price offer of the marginal supplier (generally natural gas plants), by the market price of natural gas.
Merger	the merger of Dynegy with and into Vistra Energy, with Vistra Energy as the surviving corporation
Merger Agreement	the Agreement and Plan of Merger, dated as of October 29, 2017, by and between Vistra Energy and Dynegy, as it may be amended or modified from time to time
Merger Date	April 9, 2018, the date Vistra Energy and Dynegy completed the transactions contemplated by the Merger Agreement
MISO	Midcontinent Independent System Operator, Inc.
MMBtu	million British thermal units

Moody's	Moody's Investors Service, Inc. (a credit rating agency)
MW	megawatts
MWh	megawatt-hours
NO_x	nitrogen oxide
NRC	U.S. Nuclear Regulatory Commission
NYMEX	the New York Mercantile Exchange, a commodity derivatives exchange
NYISO	New York Independent System Operator
OPEB	postretirement employee benefits other than pensions
Parent	Vistra Energy Corp.
PJM	PJM Interconnection, LLC
Plan of Reorganization	Third Amended Joint Plan of Reorganization filed by the parent company of our predecessor in August 2016 and confirmed by the U.S. Bankruptcy Court for the District of Delaware in August 2016 solely with respect to our predecessor
PrefCo	Vistra Preferred Inc.
PrefCo Preferred Stock Sale	as part of the Spin-Off, the contribution of certain of the assets of our predecessor and its subsidiaries by a subsidiary of TEX Energy LLC to PrefCo in exchange for all of PrefCo's authorized preferred stock, consisting of 70,000 shares, par value \$0.01 per share
PUCT	Public Utility Commission of Texas
REP	retail electric provider
RCT	Railroad Commission of Texas, which among other things, has oversight of lignite mining activity in Texas
RTO	regional transmission organization
S&P	Standard & Poor's Ratings (a credit rating agency)
SEC	U.S. Securities and Exchange Commission
Securities Act	Securities Act of 1933, as amended
SO₂	sulfur dioxide
Tax Matters Agreement	Tax Matters Agreement, dated as of the Effective Date, by and among Energy Future Holdings Corp. (EFH Corp.), Energy Future Intermediate Holding Company LLC, EFIH Finance Inc. and EFH Merger Co. LLC
TCEH	Texas Competitive Electric Holdings Company LLC, a direct, wholly owned subsidiary of Energy Future Competitive Holdings Company LLC, and, prior to the Effective Date, the parent company of our predecessor, depending on context, that were engaged in electricity generation and wholesale and retail energy market activities, and whose major subsidiaries included Luminant and TXU Energy
TCEQ	Texas Commission on Environmental Quality
TRA	Tax Receivable Agreement, containing certain rights (TRA Rights) to receive payments from Vistra Energy related to certain tax benefits, including those it realized as a result of certain transactions entered into at Emergence (see Note 8 to the Financial Statements)
TWh	terawatt-hours
TXU Energy	TXU Energy Retail Company LLC, an indirect, wholly owned subsidiary of Vistra Energy that is a REP in competitive areas of ERCOT and is engaged in the retail sale of electricity to residential and business customers
U.S.	United States of America
Value Based Brands	Value Based Brands LLC (d/b/a 4Change Energy and Express Energy), an indirect, wholly owned subsidiary of Vistra Energy that is a REP in competitive areas of ERCOT and is engaged in the retail sale of electricity to residential and business customers
Vistra Energy	Vistra Energy Corp. and/or its subsidiaries, depending on context
Vistra Intermediate	Vistra Intermediate Company LLC, a direct, wholly owned subsidiary of Vistra Energy
Vistra Operations	Vistra Operations Company LLC, an indirect, wholly owned subsidiary of Vistra Energy that is the issuer of certain series of notes (see Note 11 to the Financial Statements) and borrower under the Vistra Operations Credit Facilities
Vistra Operations Credit Facilities	Vistra Operations Company LLC's \$6.523 billion senior secured financing facilities (see Note 11 to the Financial Statements).

PART I. FINANCIAL INFORMATION
Item 1. FINANCIAL STATEMENTS

VISTRA ENERGY CORP.
CONDENSED STATEMENTS OF CONSOLIDATED INCOME (LOSS)
(Unaudited) (Millions of Dollars, Except Per Share Amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating revenues (Note 5)	\$ 2,832	\$ 2,574	\$ 5,755	\$ 3,338
Fuel, purchased power costs and delivery fees	(1,139)	(1,216)	(2,600)	(1,866)
Operating costs	(370)	(386)	(755)	(580)
Depreciation and amortization	(384)	(389)	(790)	(542)
Selling, general and administrative expenses	(210)	(352)	(392)	(514)
Operating income (loss)	729	231	1,218	(164)
Other income (Note 19)	13	7	39	18
Other deductions (Note 19)	(2)	(1)	(5)	(3)
Interest expense and related charges (Note 19)	(274)	(146)	(495)	(137)
Impacts of Tax Receivable Agreement (Note 8)	33	(64)	36	(82)
Equity in earnings of unconsolidated investment	3	4	10	4
Income (loss) before income taxes	502	31	803	(364)
Income tax (expense) benefit (Note 7)	(148)	74	(225)	163
Net income (loss)	\$ 354	\$ 105	\$ 578	\$ (201)
Net loss attributable to noncontrolling interest	2	3	3	3
Net income (loss) attributable to Vistra Energy	\$ 356	\$ 108	\$ 581	\$ (198)
Weighted average shares of common stock outstanding:				
Basic	499,778,235	526,332,862	499,213,522	477,662,016
Diluted	507,500,383	533,786,824	507,248,920	477,662,016
Net income (loss) per weighted average share of common stock outstanding:				
Basic	\$ 0.71	\$ 0.21	\$ 1.16	\$ (0.41)
Diluted	\$ 0.70	\$ 0.20	\$ 1.15	\$ (0.41)

See Notes to the Condensed Consolidated Financial Statements.

CONDENSED STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS)
(Unaudited) (Millions of Dollars)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net income (loss)	\$ 354	\$ 105	\$ 578	\$ (201)
Other comprehensive income, net of tax effects:				
Effects related to pension and other retirement benefit obligations (net of tax benefit of \$— in all periods)	—	—	1	1
Total other comprehensive income	—	—	1	1
Comprehensive income (loss)	\$ 354	\$ 105	\$ 579	\$ (200)
Comprehensive loss attributable to noncontrolling interest	2	3	3	3
Comprehensive income (loss) attributable to Vistra Energy	\$ 356	\$ 108	\$ 582	\$ (197)

See Notes to the Condensed Consolidated Financial Statements.

VISTRA ENERGY CORP.
CONDENSED STATEMENTS OF CONSOLIDATED CASH FLOWS
(Unaudited) (Millions of Dollars)

	Six Months Ended June 30,	
	2019	2018
Cash flows — operating activities:		
Net income (loss)	\$ 578	\$ (201)
Adjustments to reconcile net income (loss) to cash provided by (used in) operating activities:		
Depreciation and amortization	886	619
Deferred income tax (benefit) expense, net	217	(159)
Unrealized net (gain) loss from mark-to-market valuations of commodities	(703)	199
Unrealized net (gain) loss from mark-to-market valuations of interest rate swaps	199	(86)
Asset retirement obligation accretion expense	27	44
Impacts of Tax Receivable Agreement (Note 8)	(36)	82
Stock-based compensation	24	59
Other, net	73	(6)
Changes in operating assets and liabilities:		
Margin deposits, net	112	(61)
Accrued interest	6	(74)
Accrued taxes	(67)	(112)
Accrued employee incentive	(72)	(31)
Other operating assets and liabilities	(362)	(302)
Cash provided by (used in) operating activities	882	(29)
Cash flows — financing activities:		
Issuances of long-term debt (Note 11)	4,600	—
Repayments/repurchases of debt (Note 11)	(4,137)	(1,338)
Net borrowings under accounts receivable securitization program (Note 10)	91	—
Stock repurchase (Note 14)	(457)	(63)
Dividends paid to stockholders (Note 14)	(120)	—
Debt tender offer and other financing fees (Note 11)	(146)	(46)
Other, net	(1)	4
Cash used in financing activities	(170)	(1,443)
Cash flows — investing activities:		
Capital expenditures, including LTSA prepayments	(247)	(153)
Nuclear fuel purchases	(20)	(28)
Development and growth expenditures	(36)	(21)
Cash acquired in the Merger	—	445
Proceeds from sales of nuclear decommissioning trust fund securities (Note 19)	292	93
Investments in nuclear decommissioning trust fund securities (Note 19)	(302)	(103)
Proceeds from sale of environmental allowances	31	—
Purchases of environmental allowances	(138)	(1)
Other, net	21	10
Cash (used in) provided by investing activities	(399)	242
Net change in cash, cash equivalents and restricted cash	313	(1,230)
Cash, cash equivalents and restricted cash — beginning balance	693	2,046
Cash, cash equivalents and restricted cash — ending balance	\$ 1,006	\$ 816

See Notes to the Condensed Consolidated Financial Statements.

VISTRA ENERGY CORP.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited) (Millions of Dollars)

	June 30, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 964	\$ 636
Restricted cash (Note 19)	42	57
Trade accounts receivable — net (Note 19)	1,101	1,087
Inventories (Note 19)	476	412
Commodity and other derivative contractual assets (Note 16)	1,418	730
Margin deposits related to commodity contracts	253	361
Prepaid expense and other current assets	285	152
Total current assets	4,539	3,435
Investments (Note 19)	1,422	1,250
Investment in unconsolidated subsidiary (Note 19)	127	131
Property, plant and equipment — net (Note 19)	14,260	14,612
Operating lease right-of-use assets (Note 12)	34	—
Goodwill (Note 6)	2,082	2,068
Identifiable intangible assets — net (Note 6)	2,383	2,493
Commodity and other derivative contractual assets (Note 16)	124	109
Accumulated deferred income taxes	1,144	1,336
Other noncurrent assets	405	590
Total assets	\$ 26,520	\$ 26,024
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts receivable securitization program (Note 10)	\$ 430	\$ 339
Long-term debt due currently (Note 11)	161	191
Trade accounts payable	782	945
Commodity and other derivative contractual liabilities (Note 16)	1,514	1,376
Margin deposits related to commodity contracts	8	4
Accrued income taxes	12	10
Accrued taxes other than income	115	182
Accrued interest	82	77
Asset retirement obligations (Note 19)	232	156
Operating lease liabilities (Note 12)	13	—
Other current liabilities	308	345
Total current liabilities	3,657	3,625
Long-term debt, less amounts due currently (Note 11)	11,193	10,874
Operating lease liabilities (Note 12)	40	—
Commodity and other derivative contractual liabilities (Note 16)	404	270
Accumulated deferred income taxes	10	10
Tax Receivable Agreement obligation (Note 8)	384	420
Asset retirement obligations (Note 19)	2,133	2,217
Identifiable intangible liabilities — net (Note 6)	331	401
Other noncurrent liabilities and deferred credits (Note 19)	464	340
Total liabilities	18,616	18,157

VISTRA ENERGY CORP.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited) (Millions of Dollars)

	<u>June 30, 2019</u>	<u>December 31, 2018</u>
Commitments and Contingencies (Note 13)		
Total equity (Note 14):		
Common stock (par value — \$0.01; number of shares authorized — 1,800,000,000) (shares outstanding: June 30, 2019 — 476,166,856; December 31, 2018 — 493,215,309)	5	5
Additional paid-in-capital	8,909	9,329
Retained deficit	(989)	(1,449)
Accumulated other comprehensive income (loss)	(21)	(22)
Stockholders' equity	<u>7,904</u>	<u>7,863</u>
Noncontrolling interest in subsidiary	—	4
Total equity	<u>7,904</u>	<u>7,867</u>
Total liabilities and equity	<u>\$ 26,520</u>	<u>\$ 26,024</u>

See Notes to the Condensed Consolidated Financial Statements.

VISTRA ENERGY CORP.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Description of Business

References in this report to "we," "our," "us" and "the Company" are to Vistra Energy and/or its subsidiaries, as apparent in the context. See *Glossary* for defined terms.

Vistra Energy is a holding company operating an integrated retail and generation business in markets throughout the U.S. Through our subsidiaries, we are engaged in competitive electricity market activities including power generation, wholesale energy sales and purchases, commodity risk management and retail sales of electricity to end users.

Vistra Energy has six reportable segments: (i) Retail, (ii) ERCOT, (iii) PJM, (iv) NY/NE (comprising NYISO and ISO-NE), (v) MISO and (vi) Asset Closure. See Note 18 for further information concerning reportable business segments.

Acquisition of Crius

On July 15, 2019, an indirect, wholly owned subsidiary of Vistra Energy completed the acquisition of the equity interests of two wholly owned subsidiaries of Crius that indirectly own the operating business of Crius (Crius Transaction). Because the Crius Transaction closed on July 15, 2019, Vistra Energy's condensed consolidated financial statements and the notes related thereto for the period ending June 30, 2019 do not include the financial condition or the operating results of Crius and its subsidiaries. See Note 2 for a summary of the Crius Transaction.

Dynegy Merger Transaction

On the Merger Date, Vistra Energy and Dynegy completed the transactions contemplated by the Merger Agreement. Pursuant to the Merger Agreement, Dynegy merged with and into Vistra Energy, with Vistra Energy continuing as the surviving corporation. Because the Merger closed on April 9, 2018, Vistra Energy's condensed consolidated financial statements and the notes related thereto do not include the financial condition or the operating results of Dynegy prior to April 9, 2018. See Note 2 for a summary of the Merger transaction and business combination accounting.

Basis of Presentation

The condensed consolidated financial statements have been prepared in accordance with U.S. GAAP and on the same basis as the audited financial statements included in our annual report on Form 10-K for the year ended December 31, 2018. Adjustments (consisting of normal recurring accruals) necessary for a fair presentation of the results of operations and financial position have been included therein. All intercompany items and transactions have been eliminated in consolidation. Certain information and footnote disclosures normally included in annual consolidated financial statements prepared in accordance with U.S. GAAP have been omitted pursuant to the rules and regulations of the SEC. Because the condensed consolidated interim financial statements do not include all of the information and footnotes required by U.S. GAAP, they should be read in conjunction with the audited financial statements and related notes contained in our annual report on Form 10-K for the year ended December 31, 2018. The results of operations for an interim period may not give a true indication of results for a full year. All dollar amounts in the financial statements and tables in the notes are stated in millions of U.S. dollars unless otherwise indicated.

Use of Estimates

Preparation of financial statements requires estimates and assumptions about future events that affect the reporting of assets and liabilities at the balance sheet dates and the reported amounts of revenue and expense, including fair value measurements, estimates of expected obligations, judgment related to the potential timing of events and other estimates. In the event estimates and/or assumptions prove to be different from actual amounts, adjustments are made in subsequent periods to reflect more current information.

Leases

At the inception of a contract we determine if it is or contains a lease, which involves the contract conveying the right to control the use of explicitly or implicitly identified property, plant, or equipment for a period of time in exchange for consideration.

Right-of-use (ROU) assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. ROU assets and lease liabilities are recognized at the commencement date of the underlying lease based on the present value of lease payments over the lease term. We use our secured incremental borrowing rate based on the information available at the lease commencement date to determine the present value of lease payments. Operating leases are included in operating lease ROU assets, operating lease liabilities (current) and operating lease liabilities (noncurrent) on our condensed consolidated balance sheet. Finance leases are included in property, plant and equipment, other current liabilities and other noncurrent liabilities and deferred credits on our condensed consolidated balance sheet. Lease term includes options to extend or terminate the lease when it is reasonably certain that we will exercise the option. We have elected the practical expedient which permits us to not reassess under the new standard our prior conclusion about lease classification and initial direct costs. We have also elected the practical expedient to not separate lease and non-lease components for a majority of the lease asset classes. We have also elected the hindsight practical expedient to determine the lease term.

Leases with an initial lease term of 12 months or less are not recorded on the balance sheet; we recognize lease expense for these leases on a straight-line basis over the lease term.

We also present lessor sublease income on a net basis against the related lessee lease expense.

Adoption of New Accounting Standards

Leases — On January 1, 2019, we adopted Accounting Standards Update (ASU) 2016-02, *Leases (Topic 842)* and all related amendments (new lease standard) using the modified retrospective method with the cumulative-effect adjustment to the opening balance of retained earnings for all contracts outstanding at the time of adoption. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. We expect the impact of the adoption of the new lease standard to be immaterial to our net income on an ongoing basis. The impact of adopting the new lease standard primarily relates to recognition of lease liabilities and ROU assets for all leases classified as operating leases. Under the new lease standard, each ROU asset will be amortized over the lease term and liability settled at the end of the lease term.

We recognized the effect of initially applying the new lease standard by recording ROU assets of \$85 million and lease liabilities of \$123 million in our condensed consolidated balance sheet.

As of January 1, 2019, the cumulative effect of the changes made to our condensed consolidated balance sheet for the adoption of the new lease standard was as follows:

	December 31, 2018	Adoption of New Lease Standard	January 1, 2019
Impact on condensed consolidated balance sheet:			
Assets			
Property, plant and equipment — net	\$ 14,612	\$ 15	\$ 14,627
Operating lease right-of-use assets	—	70	70
Prepaid expense and other current assets	152	(2)	150
Accumulated deferred income taxes	1,336	1	1,337
Liabilities			
Other current liabilities	345	(1)	344
Operating lease liabilities	—	109	109
Identifiable intangible liabilities	401	(36)	365
Other noncurrent liabilities and deferred credits	340	14	354
Equity			
Retained deficit	(1,449)	(2)	(1,451)

See Note 12 for the disclosures required by the new lease standard.

Changes in Accounting Standards

In August 2018, the Financial Accounting Standards Board (FASB) issued ASU 2018-13, *Changes to the Disclosure Requirements for Fair Value Measurement*. The ASU will be effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The ASU removes disclosure requirements for (a) the reasons for transfers between Level 1 and Level 2, (b) the policy for timing of transfers between levels and (c) the valuation processes for Level 3. The ASU will require new disclosures around (a) the changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and (b) the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. We are currently evaluating the impact of this ASU on our disclosures.

In August 2018, the FASB issued ASU 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. The ASU will be effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The ASU requires a customer in a cloud hosting arrangement that is a service contract to determine which implementation costs to capitalize and which costs to expense based on the project stage of the implementation. The ASU also requires the customer to expense the capitalized implementation costs over the term of the hosting arrangement. The customer is required to apply the existing impairment and abandonment guidance on the capitalized implementation costs. We are currently evaluating the impact of this ASU on our financial statements.

2. ACQUISITION OF CRIUS, DYNEGY MERGER TRANSACTION AND BUSINESS COMBINATION ACCOUNTING

Acquisition of Crius

On July 15, 2019 (Acquisition Date), Vienna Acquisition B.C. Ltd., an indirect, wholly owned subsidiary of Vistra Energy, completed the acquisition of the equity interests of two wholly owned subsidiaries of Crius that indirectly own the operating business of Crius. Crius is an energy retailer selling both electricity and natural gas products to residential and small business customers in 19 states and the District of Columbia.

The Crius Transaction is expected to (i) reduce risk and expand into higher margin channels by improving Vistra Energy's match of its generation to load profile due to a high degree of overlap with Vistra Energy's generation fleet with Crius' approximately 11.6 TWh of annual load, (ii) establish a platform for future growth by leveraging Vistra Energy's existing retail marketing capabilities and Crius' experienced team and (iii) enhance the integrated value proposition through collateral and transaction efficiencies, particularly via Crius' retail portfolio.

The Crius Transaction is being accounted for in accordance with ASC 805, *Business Combinations* (ASC 805), with identifiable assets acquired and liabilities assumed recorded at their estimated fair values on the Acquisition Date. Due to the limited time between the Acquisition Date and this filing, our purchase price allocation for the assets acquired and the liabilities assumed in the Merger has not been completed. The results of operations of Crius will be reported in our consolidated financial statements beginning as of the Acquisition Date. Vistra Energy funded the purchase price of approximately \$400 million (including \$380 million for outstanding trust units) using cash on hand and assumption of Crius' net debt of approximately \$111 million. Our initial accounting for the purchase price allocation for the assets acquired and the liabilities assumed in the Crius Transaction and the supplemental pro forma financial results is currently underway and will be presented no later than the third quarter of 2019.

Dynegy Merger Transaction

On the Merger Date, Vistra Energy and Dynegy completed the transactions contemplated by the Merger Agreement. Pursuant to the Merger Agreement, Dynegy merged with and into Vistra Energy, with Vistra Energy continuing as the surviving corporation. The Merger was intended to qualify as a tax-free reorganization under the Internal Revenue Code, as amended, so that none of Vistra Energy, Dynegy or any of the Dynegy stockholders would recognize any gain or loss in the transaction, except that Dynegy stockholders could recognize a gain or loss with respect to cash received in lieu of fractional shares of Vistra Energy's common stock. Vistra Energy is the acquirer for both federal tax and accounting purposes.

At the closing of the Merger, each issued and outstanding share of Dynegy common stock, par value \$0.01 per share, other than shares owned by Vistra Energy or its subsidiaries, held in treasury by Dynegy or held by a subsidiary of Dynegy, was automatically converted into 0.652 shares of common stock, par value \$0.01 per share, of Vistra Energy (the Exchange Ratio), except that cash was paid in lieu of fractional shares, which resulted in Vistra Energy issuing 94,409,573 shares of Vistra Energy common stock to the former Dynegy stockholders, as well as converting stock options, equity-based awards, tangible equity units and warrants. The total number of Vistra Energy shares outstanding at the close of the Merger was 522,932,453 shares. Dynegy stock options and equity-based awards outstanding immediately prior to the Merger Date were generally automatically converted upon completion of the Merger into stock options and equity-based awards, respectively, with respect to Vistra Energy's common stock, after giving effect to the Exchange Ratio.

Dynegy Business Combination Accounting

We believe the Merger has provided and continues to provide significant strategic benefits and opportunities to Vistra Energy, including increased scale and market diversification, rebalanced asset portfolio and improved earnings and cash flow. The Merger was accounted for in accordance with ASC 805, *Business Combinations* (ASC 805), with identifiable assets acquired and liabilities assumed recorded at their estimated fair values on the Merger Date. The combined results of operations are reported in our consolidated financial statements beginning as of the Merger Date. A summary of the techniques used to estimate the fair value of the identifiable assets and liabilities, as well as their classification within the fair value hierarchy (see Note 15), is listed below:

- Working capital was valued using available market information (Level 2).
- Acquired property, plant and equipment was valued using a combination of an income approach and a market approach. The income approach utilized a discounted cash flow analysis based upon a debt-free, free cash flow model (Level 3).
- Acquired derivatives were valued using the methods described in Note 15 (Level 1, Level 2 or Level 3).
- Contracts with terms that were not at current market prices were also valued using a discounted cash flow analysis (Level 3). The cash flows generated by the contracts were compared with their cash flows based on current market prices with the resulting difference discounted to present value and recorded as either an intangible asset or liability.
- Long-term debt was valued using a market approach (Level 2).
- AROs were recorded in accordance with ASC 410, *Asset Retirement and Environmental Obligations* (Level 3).

The following table summarizes the consideration paid and the final allocation of the purchase price to the fair value amounts recognized for the assets acquired and liabilities assumed related to the Merger as of the Merger Date. Based on the opening price of Vistra Energy common stock on the Merger Date, the purchase price was approximately \$2.3 billion . During the three months ended March 31, 2019, the purchase price allocation was completed. During the period from April 9, 2018 through March 31, 2019, we updated the initial purchase price allocation with final valuations by increasing property, plant and equipment by \$173 million , decreasing intangible assets by \$36 million , increasing goodwill by \$175 million , decreasing accounts receivable, inventory, prepaid expenses and other current assets by \$10 million , increasing accumulated deferred tax asset by \$127 million , decreasing other noncurrent assets by \$113 million , increasing trade accounts payable and other current liabilities by \$89 million , increasing other noncurrent liabilities by \$177 million , increasing asset retirement obligations, including amounts due currently, by \$56 million , as well as other minor adjustments. The valuation revisions were a result of updated inputs used in determining the fair value of the acquired assets and liabilities.

Dynegy shares outstanding as of April 9, 2018 (in millions)	144.8
Exchange Ratio	0.652
Vistra Energy shares issued for Dynegy shares outstanding (in millions)	94.4
Opening price of Vistra Energy common stock on April 9, 2018	\$ 19.87
Purchase price for common stock	\$ 1,876
Fair value of equity component of tangible equity units	\$ 369
Fair value of outstanding stock compensation awards attributable to pre-combination service	\$ 26
Fair value of outstanding warrants	\$ 2
Total purchase price	\$ 2,273

Final Purchase Price Allocation

Cash and cash equivalents	\$ 445
Trade accounts receivables, inventories, prepaid expenses and other current assets	853
Property, plant and equipment	10,535
Accumulated deferred income taxes	518
Identifiable intangible assets	351
Goodwill	175
Other noncurrent assets	419
Total assets acquired	13,296
Trade accounts payable and other current liabilities	733
Commodity and other derivative contractual assets and liabilities, net	422
Asset retirement obligations, including amounts due currently	475
Long-term debt, including amounts due currently	8,919
Other noncurrent liabilities	469
Total liabilities assumed	11,018
Identifiable net assets acquired	2,278
Noncontrolling interest in subsidiary	5
Total purchase price	\$ 2,273

Acquisition costs incurred in the Merger totaled less than \$1 million and \$50 million for the three months ended June 30, 2019 and 2018, respectively, and less than \$1 million and \$52 million for the six months ended June 30, 2019 and 2018, respectively.

Unaudited Pro Forma Financial Information — The following unaudited pro forma financial information for the six months ended June 30, 2018 assumes that the Merger occurred on January 1, 2018. The unaudited pro forma financial information is provided for information purposes only and is not necessarily indicative of the results of operations that would have occurred had the Merger been completed on January 1, 2018, nor is the unaudited pro forma financial information indicative of future results of operations, which may differ materially from the pro forma financial information presented here.

	Six Months Ended June 30, 2018
Revenues	\$ 4,789
Net loss	\$ (439)
Net loss attributable to Vistra Energy	\$ (435)
Net loss attributable to Vistra Energy per weighted average share of common stock outstanding — basic	\$ (0.83)
Net loss attributable to Vistra Energy per weighted average share of common stock outstanding — diluted	\$ (0.83)

The unaudited pro forma financial information presented above includes adjustments for incremental depreciation and amortization as a result of the fair value determination of the net assets acquired, interest expense on debt assumed in the Merger, effects of the Merger on tax expense (benefit), changes in the expected impacts of the tax receivable agreement due to the Merger, and other related adjustments.

3. ACQUISITION AND DEVELOPMENT OF GENERATION FACILITIES

Battery Energy Storage Projects

We have completed the construction of our first battery energy storage system (ESS). In October 2018, we were awarded a \$1 million grant from the TCEQ for our battery ESS at our Upton 2 solar facility. The grant is part of the Texas Emissions Reduction Plan. The 10 MW lithium-ion ESS captures excess solar energy produced during the day and releases the energy in late afternoon and early evening, when demand is highest. The Upton 2 battery ESS became operational in December 2018.

In June 2019, East Bay Community Energy signed a ten-year contract to receive resource adequacy capacity from the planned development of a 20 MW battery ESS at our Oakland Power Plant site in California. The contract is now pending utility review and signature and will then be sent to the California Public Utilities Commission (CPUC) for approval.

In June 2018, we announced that, subject to approval by the CPUC, we would enter into a 20 -year resource adequacy contract with Pacific Gas and Electric Company (PG&E) to develop a 300 MW battery ESS at our Moss Landing Power Plant site in California. PG&E filed its application with the CPUC in June 2018 and the CPUC approved the resource adequacy contract in November 2018. At June 30, 2019 , we had accumulated approximately \$15 million in construction work-in-process for this ESS. We anticipate the Moss Landing battery ESS will commence commercial operations by the fourth quarter of 2020. PG&E filed for Chapter 11 bankruptcy protection in January 2019. If the terms of the resource adequacy contract are not honored by PG&E or the resource adequacy contract is rejected through the bankruptcy process, we could have future impairment losses.

Upton 2 Solar Development

In May 2017, we acquired the rights to develop, construct and operate a utility scale solar photovoltaic power generation facility in Upton County, Texas (Upton 2). As part of this project, we entered a turnkey engineering, procurement and construction agreement to construct the approximately 180 MW facility. During 2017 and 2018, we spent approximately \$231 million related to this project primarily for progress payments under the engineering, procurement and construction agreement and the acquisition of the development rights. The facility began test operations in March 2018 and commercial operations began in June 2018.

4. RETIREMENT OF GENERATION FACILITIES

In August 2018, we filed a notice of suspension of operation with PJM and other mandatory regulatory notifications related to the retirement of our 51 MW Northeastern Power Company waste coal facility in McAdoo, Pennsylvania (Northeastern Facility). We decided to retire the Northeastern Facility due to its uneconomic operations and financial outlook. Following the receipt of regulatory approvals, the Northeastern Facility was retired in October 2018. The decision to retire the Northeastern Facility did not result in a material impact to the financial statements, and the operational results of the Northeastern Facility are included in our Asset Closure segment.

Two of our non-operated, jointly held power plants acquired in the Merger, for which our proportional generation capacity was 883 MW, were retired in May 2018. These units were retired as previously scheduled. No gain or loss was recorded in conjunction with the retirement of these units, and the operational results of these facilities are included in our Asset Closure segment. The following table details the units retired.

Name	Location	Fuel Type	Net Generation Capacity (MW)	Ownership Interest	Date Units Taken Offline
Killen	Manchester, Ohio	Coal	204	33%	May 31, 2018
Stuart	Aberdeen, Ohio	Coal	679	39%	May 24, 2018
Total			883		

In January and February 2018, we retired three power plants with a total installed nameplate generation capacity of 4,167 MW. We decided to retire these units because they were projected to be uneconomic based on then current market conditions and would have faced significant environmental costs associated with operating such units. In the case of the Sandow units, the decision also reflected the execution of a contract termination agreement pursuant to which the Company and Alcoa agreed to an early settlement of a long-standing power and mining agreement. Expected retirement expenses were accrued in the third and fourth quarter of 2017 and, as a result, no retirement expenses were recorded related to these facilities in the three and six months ended June 30, 2018. The operational results of these facilities are included in our Asset Closure segment, which is engaged in the decommissioning and reclamation of retired plants and mines. The following table details the units retired.

Name	Location (all in the state of Texas)	Fuel Type	Installed Nameplate Generation Capacity (MW)	Number of Units	Date Units Taken Offline
Monticello	Titus County	Lignite/Coal	1,880	3	January 4, 2018
Sandow	Milam County	Lignite	1,137	2	January 11, 2018
Big Brown	Freestone County	Lignite/Coal	1,150	2	February 12, 2018
Total			4,167	7	

5. REVENUE

The following tables disaggregate our revenue by major source:

	Three Months Ended June 30, 2019						
	Retail	ERCOT	PJM	NY/NE	MISO	CAISO/Eliminations	Consolidated
Revenue from contracts with customers:							
Retail energy charge in ERCOT	\$ 1,091	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1,091
Retail energy charge in Northeast/Midwest	315	—	—	—	—	—	315
Wholesale generation revenue from ISO/RTO	—	188	130	81	76	22	497
Capacity revenue	—	—	53	72	11	—	136
Revenue from other wholesale contracts	—	52	87	6	41	4	190
Total revenue from contracts with customers	1,406	240	270	159	128	26	2,229
Other revenues:							
Intangible amortization	(10)	—	—	(1)	(4)	1	(14)
Hedging and other revenues (a)	25	404	81	61	26	20	617
Affiliate sales	—	1,027	335	35	96	(1,493)	—
Total other revenues	15	1,431	416	95	118	(1,472)	603
Total revenues	\$ 1,421	\$ 1,671	\$ 686	\$ 254	\$ 246	\$ (1,446)	\$ 2,832

(a) Includes \$538 million of unrealized net gains from mark-to-market valuations of commodity positions. See Note 18 for unrealized net gains (losses) by segment.

	Three Months Ended June 30, 2018							
	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	CAISO/Eliminations	Consolidated
Revenue from contracts with customers:								
Retail energy charge in ERCOT	\$ 1,111	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1,111
Retail energy charge in Northeast/Midwest	336	—	—	—	—	—	—	336
Wholesale generation revenue from ISO/RTO	—	208	367	118	180	15	13	901
Capacity revenue	—	—	119	82	29	10	11	251
Revenue from other wholesale contracts	—	50	8	6	12	—	2	78
Total revenue from contracts with customers	1,447	258	494	206	221	25	26	2,677
Other revenues:								
Intangible amortization	(15)	—	—	(2)	(6)	—	—	(23)
Hedging and other revenues (a)	22	229	(161)	(29)	(121)	(25)	5	(80)
Affiliate sales	—	840	152	12	163	21	(1,188)	—
Total other revenues	7	1,069	(9)	(19)	36	(4)	(1,183)	(103)
Total revenues	\$ 1,454	\$ 1,327	\$ 485	\$ 187	\$ 257	\$ 21	\$ (1,157)	\$ 2,574

(a) Includes \$203 million of unrealized net gains from mark-to-market valuations of commodity positions. See Note 18 for unrealized net gains (losses) by segment.

	Six Months Ended June 30, 2019							
	Retail	ERCOT	PJM	NY/NE	MISO	CAISO/Eliminations	Consolidated	
Revenue from contracts with customers:								
Retail energy charge in ERCOT	\$ 2,116	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 2,116	
Retail energy charge in Northeast/Midwest	663	—	—	—	—	—	663	
Wholesale generation revenue from ISO/RTO	—	435	351	276	214	95	1,371	
Capacity revenue	—	—	120	152	24	—	296	
Revenue from other wholesale contracts	—	97	159	12	57	6	331	
Total revenue from contracts with customers	2,779	532	630	440	295	101	4,777	
Other revenues:								
Intangible amortization	(19)	—	—	(3)	(9)	2	(29)	
Hedging and other revenues (a)	46	562	171	113	54	61	1,007	
Affiliate sales	—	1,531	590	49	160	(2,330)	—	
Total other revenues	27	2,093	761	159	205	(2,267)	978	
Total revenues	\$ 2,806	\$ 2,625	\$ 1,391	\$ 599	\$ 500	\$ (2,166)	\$ 5,755	

(a) Includes \$697 million of unrealized net gains from mark-to-market valuations of commodity positions. See Note 18 for unrealized net gains (losses) by segment.

	Six Months Ended June 30, 2018							
	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	CAISO/Eliminations	Consolidated
Revenue from contracts with customers:								
Retail energy charge in ERCOT	\$ 2,059	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 2,059
Retail energy charge in Northeast/Midwest	336	—	—	—	—	—	—	336
Wholesale generation revenue from ISO/RTO	—	383	367	118	180	51	13	1,112
Capacity revenue	—	—	119	82	29	10	11	251
Revenue from other wholesale contracts	—	102	8	6	12	1	2	131
Total revenue from contracts with customers	2,395	485	494	206	221	62	26	3,889
Other revenues:								
Intangible amortization	(27)	(1)	—	(2)	(6)	—	—	(36)
Hedging and other revenues (a)	58	(233)	(161)	(29)	(121)	(34)	5	(515)
Affiliate sales	—	543	152	12	163	21	(891)	—
Total other revenues	31	309	(9)	(19)	36	(13)	(886)	(551)
Total revenues	\$ 2,426	\$ 794	\$ 485	\$ 187	\$ 257	\$ 49	\$ (860)	\$ 3,338

(a) Includes \$208 million of unrealized net losses from mark-to-market valuations of commodity positions. See Note 18 for unrealized net gains (losses) by segment.

Performance Obligations

As of June 30, 2019, we have future performance obligations that are unsatisfied, or partially unsatisfied, relating to capacity auction volumes awarded through capacity auctions held by the ISO or RTO or through bilateral sales. Therefore, an obligation exists as of the date of the results of the respective ISO or RTO capacity auction or the contract execution date for bilateral customers. The transaction price is also set by the results of the capacity auction and/or executed contract. These obligations total \$440 million, \$770 million, \$720 million, \$423 million and \$96 million that will be recognized in the balance of the year ended December 31, 2019 and the years ending December 31, 2020, 2021, 2022 and 2023, respectively, and \$65 million thereafter. Capacity revenues are recognized as capacity services are provided to the related ISOs or RTOs or bilateral counterparties.

Accounts Receivable

The following table presents trade accounts receivable (net of allowance for uncollectible accounts) relating to both contracts with customers and other activities:

	June 30, 2019	December 31, 2018
Trade accounts receivable from contracts with customers — net	\$ 977	\$ 951
Other trade accounts receivable — net	124	136
Total trade accounts receivable — net	<u>\$ 1,101</u>	<u>\$ 1,087</u>

6. GOODWILL AND IDENTIFIABLE INTANGIBLE ASSETS AND LIABILITIES

Goodwill

The carrying value of goodwill totaled \$2.082 billion and \$2.068 billion at June 30, 2019 and December 31, 2018, respectively. Of the total goodwill at June 30, 2019, \$175 million arose in connection with the Merger, and \$122 million is recorded in our ERCOT Generation and Wholesale reporting unit and \$53 million is recorded in our ERCOT Retail reporting unit. The remaining \$1.907 billion arose in connection with our application of fresh start reporting at Emergence and was allocated entirely to our ERCOT Retail reporting unit. Of the goodwill recorded at Emergence, \$1.686 billion is deductible for tax purposes over 15 years on a straight-line basis.

Identifiable Intangible Assets and Liabilities

Identifiable intangible assets are comprised of the following:

Identifiable Intangible Asset	June 30, 2019			December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Retail customer relationship	\$ 1,680	\$ 987	\$ 693	\$ 1,680	\$ 876	\$ 804
Software and other technology-related assets	321	124	197	270	105	165
Retail and wholesale contracts	315	172	143	316	138	178
Contractual service agreements (a)	60	2	58	70	—	70
Other identifiable intangible assets (b)	118	74	44	42	15	27
Total identifiable intangible assets subject to amortization	<u>\$ 2,494</u>	<u>\$ 1,359</u>	1,135	<u>\$ 2,378</u>	<u>\$ 1,134</u>	1,244
Retail trade names (not subject to amortization)			1,245			1,245
Mineral interests (not currently subject to amortization)			3			4
Total identifiable intangible assets			<u>\$ 2,383</u>			<u>\$ 2,493</u>

- (a) At June 30, 2019, amounts related to contractual service agreements that have become liabilities due to amortization of the economic impacts of the intangibles have been removed from both the gross carrying amount and accumulated amortization.
- (b) Includes mining development costs and environmental allowances and credits.

Identifiable intangible liabilities are comprised of the following:

Identifiable Intangible Liability	June 30, 2019	December 31, 2018
Contractual service agreements	\$ 107	\$ 136
Purchase and sale contracts	183	195
Environmental allowances	41	70
Total identifiable intangible liabilities	<u>\$ 331</u>	<u>\$ 401</u>

Amortization expense related to finite-lived identifiable intangible assets and liabilities (including the classification in the condensed statements of consolidated income (loss)) consisted of:

Identifiable Intangible Assets and Liabilities	Condensed Statements of Consolidated Income (Loss) Line	Three Months Ended June 30,		Six Months Ended June 30,	
		2019	2018	2019	2018
Retail customer relationship	Depreciation and amortization	\$ 55	\$ 77	\$ 111	\$ 150
Software and other technology-related assets	Depreciation and amortization	15	19	29	30
Retail and wholesale contracts/purchase and sale contracts	Operating revenues/fuel, purchased power costs and delivery fees	12	23	24	32
Other identifiable intangible assets	Operating revenues/fuel, purchased power costs and delivery fees/depreciation and amortization	15	2	39	3
Total amortization expense (a)		<u>\$ 97</u>	<u>\$ 121</u>	<u>\$ 203</u>	<u>\$ 215</u>

(a) Amounts recorded in depreciation and amortization totaled \$72 million and \$97 million for the three months ended June 30, 2019 and 2018, respectively, and \$141 million and \$182 million for the six months ended June 30, 2019 and 2018, respectively. Excludes contractual services agreements.

Estimated Amortization of Identifiable Intangible Assets and Liabilities

As of June 30, 2019, the estimated aggregate amortization expense of identifiable intangible assets and liabilities for each of the next five fiscal years is as shown below.

Year	Estimated Amortization Expense
2019	\$ 309
2020	\$ 211
2021	\$ 164
2022	\$ 101
2023	\$ 76

7. INCOME TAXES

Income Tax Expense

The calculation of our effective tax rate is as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Income (loss) before income taxes	\$ 502	\$ 31	\$ 803	\$ (364)
Income tax (expense) benefit	\$ (148)	\$ 74	\$ (225)	\$ 163
Effective tax rate	29.5%	(238.7)%	28.0%	44.8%

For the three months ended June 30, 2019, the effective tax rate of 29.5% related to our income tax expense was higher than the U.S. federal statutory rate of 21% due primarily to nondeductible impacts of the TRA and state income taxes, including the impact of a partial valuation allowance on the state of Illinois net operating loss. For the six months ended June 30, 2019, the effective tax rate of 28.0% related to our income tax expense was higher than the U.S. federal statutory rate of 21% due primarily to nondeductible impacts of the TRA and state income taxes, including the impact of a partial valuation allowance on the state of Illinois net operating loss.

For the three months ended June 30, 2018, the effective tax rate of (238.7)% related to our income tax benefit was lower than the U.S. federal statutory rate of 21% due primarily to Vistra Energy's expanded state tax footprint requiring a one-time remeasurement of historical Vistra Energy deferred tax balances, partially offset by an increase in state tax expense. For the six months ended June 30, 2018, the effective tax rate of 44.8% related to our income tax benefit was higher than the U.S. federal statutory rate of 21% due primarily to Vistra Energy's expanded state tax footprint requiring a one-time remeasurement of historical Vistra Energy deferred tax balances and an increase in state tax expense.

Liability for Uncertain Tax Positions

Vistra Energy and its subsidiaries file income tax returns in U.S. federal and state jurisdictions and are expected to be subject to examinations by the IRS and other taxing authorities. Vistra Energy is not currently under audit by the IRS for any period, although review of Dynegey tax years 2017 and 2018 continue to progress through the IRS's Compliance Assurance Process audit program. Uncertain tax positions totaling \$39 million at both June 30, 2019 and December 31, 2018 arose in connection with the Merger.

8. TAX RECEIVABLE AGREEMENT OBLIGATION

On the Effective Date, Vistra Energy entered into a tax receivable agreement (the TRA) with a transfer agent on behalf of certain former first lien creditors of TCEH. The TRA generally provides for the payment by us to holders of TRA Rights of 85% of the amount of cash savings, if any, in U.S. federal and state income tax that we realize in periods after Emergence as a result of (a) certain transactions consummated pursuant to the Plan of Reorganization (including the step-up in tax basis in our assets resulting from the PrefCo Preferred Stock Sale), (b) the tax basis of all assets acquired in connection with the acquisition of two CCGT natural gas-fueled generation facilities in April 2016 and (c) tax benefits related to imputed interest deemed to be paid by us as a result of payments under the TRA, plus interest accruing from the due date of the applicable tax return.

Pursuant to the TRA, we issued the TRA Rights for the benefit of the first lien secured creditors of TCEH entitled to receive such TRA Rights under the Plan of Reorganization. Such TRA Rights are entitled to certain registration rights more fully described in the Registration Rights Agreement (see Note 17).

During the three months ended June 30, 2019, we recorded a decrease to the carrying value of the TRA obligation totaling approximately \$48 million as a result of the decrease in forecasted taxable income over the projected life of the TRA. During the three months ended March 31, 2019, we recorded a decrease to the carrying value of the TRA obligation totaling approximately \$19 million as a result of adjustments to forecasted taxable income and higher net operating losses acquired in the Merger. During the three months ended June 30, 2018, we recorded an increase to the carrying value of the TRA obligation totaling approximately \$46 million related to changes in the timing of estimated payments and new multistate tax impacts resulting from the Merger.

The following table summarizes the changes to the TRA obligation, reported as other current liabilities and Tax Receivable Agreement obligation in our condensed consolidated balance sheets, for the six months ended June 30, 2019 and 2018 :

	Six Months Ended June 30,	
	2019	2018
TRA obligation at the beginning of the period	\$ 420	\$ 357
Accretion expense	31	36
Changes in tax assumptions impacting timing of payments	(67)	46
Impacts of Tax Receivable Agreement	(36)	82
TRA obligation at the end of the period	384	439
Less amounts due currently	—	(25)
Noncurrent TRA obligation at the end of the period	\$ 384	\$ 414

As of June 30, 2019, the estimated carrying value of the TRA obligation totaled \$384 million, which represents the discounted amount of projected payments under the TRA. The projected payments are based on certain assumptions, including but not limited to (a) the federal corporate income tax rate of 21%, (b) estimates of our taxable income in the current and future years and (c) additional states that Vistra Energy now operates in, including the relevant tax rate and apportionment factor for each state. Our taxable income takes into consideration the current federal tax code, various relevant state tax laws and reflects our current estimates of future results of the business. These assumptions are subject to change, and those changes could have a material impact on the carrying value of the TRA obligation. As of June 30, 2019, the aggregate amount of undiscounted federal and state payments under the TRA is estimated to be approximately \$1.3 billion, with more than half of such amount expected to be attributable to the first 15 tax years following Emergence, and the final payment expected to be made approximately 40 years following Emergence (if the TRA is not terminated earlier pursuant to its terms).

The carrying value of the obligation is being accreted to the amount of the gross expected obligation using the effective interest method. Changes in the amount of this obligation resulting from changes to either the timing or amount of TRA payments are recognized in the period of change and measured using the discount rate inherent in the initial fair value of the obligation.

9. EARNINGS PER SHARE

Basic earnings per share available to common shareholders are based on the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated using the treasury stock method and includes the effect of all potential issuances of common shares under stock-based incentive compensation arrangements.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net income (loss) attributable to common stock — basic	\$ 356	\$ 108	\$ 581	\$ (198)
Weighted average shares of common stock outstanding — basic (a)	499,778,235	526,332,862	499,213,522	477,662,016
Net income (loss) per weighted average share of common stock outstanding — basic	\$ 0.71	\$ 0.21	\$ 1.16	\$ (0.41)
Dilutive securities: Stock-based incentive compensation plan and tangible equity units	7,722,148	7,453,962	8,035,398	—
Weighted average shares of common stock outstanding — diluted	507,500,383	533,786,824	507,248,920	477,662,016
Net income (loss) per weighted average share of common stock outstanding — diluted	\$ 0.70	\$ 0.20	\$ 1.15	\$ (0.41)

(a) The minimum settlement amount of tangible equity units, or 15,207,600 shares in both the three and six months ended June 30, 2019 and 15,056,260 shares in both the three and six months ended June 30, 2018, are considered to be outstanding and are included in the computation of basic net income per share (see Note 14).

Stock-based incentive compensation plan awards excluded from the calculation of diluted earnings per share because the effect would have been antidilutive totaled 2,910,226 and 8,064,657 shares for the three months ended June 30, 2019 and 2018, respectively, and 7,577,246 and 18,392,470 shares for the six months ended June 30, 2019 and 2018, respectively.

10. ACCOUNTS RECEIVABLE SECURITIZATION PROGRAM

TXU Energy Receivables Company LLC (RecCo), an indirect subsidiary of Vistra Energy, has an accounts receivable financing facility (Receivables Facility) provided by issuers of asset-backed commercial paper and commercial banks (Purchasers). At June 30, 2019, the Receivables Facility provided RecCo with the ability to borrow up to \$450 million, pursuant to an amendment to the terms of the Receivables Facility in April 2019. The Receivables Facility was renewed in July 2019, extending its scheduled termination from August 2019 to July 2020, with the ability to borrow up to \$600 million until the settlement date in November 2019, after which the amount available for RecCo to borrow will revert to \$450 million.

Under the Receivables Facility, TXU Energy and Dynegy Energy Services are obligated to sell or contribute, on an ongoing basis and without recourse, their accounts receivable to TXU Energy's special purpose subsidiary, RecCo, a consolidated, wholly owned, bankruptcy-remote, direct subsidiary of TXU Energy. RecCo, in turn, is subject to certain conditions, and may, from time to time, sell an undivided interest in all the receivables acquired from TXU Energy and Dynegy Energy Services to the Purchasers, and its assets and credit are not available to satisfy the debts and obligations of any person, including affiliates of RecCo. Amounts funded by the Purchasers to RecCo are reflected as short-term borrowings on the condensed consolidated balance sheets. Proceeds and repayments under the Receivables Facility are reflected as cash flows from financing activities in our condensed statements of consolidated cash flows. Receivables transferred to the Purchasers remain on Vistra Energy's balance sheet and Vistra Energy reflects a liability equal to the amount advanced by the Purchasers. The Company records interest expense on amounts advanced. TXU Energy continues to service, administer and collect the trade receivables on behalf of RecCo and the Purchasers, as applicable.

As of June 30, 2019, outstanding borrowings under the receivables facility totaled \$430 million and were supported by \$662 million of RecCo gross receivables. As of December 31, 2018, outstanding borrowings under the receivables facility totaled \$339 million.

11. LONG-TERM DEBT

Amounts in the table below represent the categories of long-term debt obligations incurred by the Company.

	June 30, 2019	December 31, 2018
Vistra Operations Credit Facilities	\$ 3,798	\$ 5,813
Vistra Operations Senior Secured Notes:		
3.550% Senior Secured Notes, due July 15, 2024	1,200	—
4.300% Senior Secured Notes, due July 15, 2029	800	—
Total Vistra Operations Senior Secured Notes	2,000	—
Vistra Operations Senior Unsecured Notes:		
5.500% Senior Notes, due September 1, 2026	1,000	1,000
5.625% Senior Notes, due February 15, 2027	1,300	—
5.000% Senior Notes, due July 31, 2027	1,300	—
Total Vistra Operations Senior Unsecured Notes	3,600	1,000
Vistra Energy Senior Unsecured Notes:		
7.375% Senior Notes, due November 1, 2022	306	1,707
5.875% Senior Notes, due June 1, 2023	500	500
7.625% Senior Notes, due November 1, 2024	475	1,147
8.034% Senior Notes, due February 2, 2024	—	25
8.000% Senior Notes, due January 15, 2025	81	81
8.125% Senior Notes, due January 30, 2026	166	166
Total Vistra Energy Senior Unsecured Notes	1,528	3,626
Other:		
7.000% Amortizing Notes, due July 1, 2019	8	24
Forward Capacity Agreements	222	236
Equipment Financing Agreements	114	120
Mandatorily redeemable subsidiary preferred stock (a)	70	70
8.82% Building Financing due semiannually through February 11, 2022 (b)	18	21
Total other long-term debt	432	471
Unamortized debt premiums, discounts and issuance costs (c)	(4)	155
Total long-term debt including amounts due currently	11,354	11,065
Less amounts due currently	(161)	(191)
Total long-term debt less amounts due currently	\$ 11,193	\$ 10,874

- (a) Shares of mandatorily redeemable preferred stock in PrefCo. This subsidiary preferred stock is accounted for as a debt instrument under relevant accounting guidance. At any time after October 3, 2019, Vistra Energy may redeem all or any portion of the preferred stock for a price per share equal to the preferred liquidation amount.
- (b) Obligation related to a corporate office space finance lease. This obligation will be funded by amounts held in an escrow account that is reflected in other noncurrent assets in our condensed consolidated balance sheets.
- (c) Includes impact of recording debt assumed in the Merger at fair value.

Vistra Operations Credit Facilities

At June 30, 2019, the Vistra Operations Credit Facilities consisted of up to \$6.523 billion in senior secured, first lien revolving credit commitments and outstanding term loans, which consisted of revolving credit commitments of up to \$2.725 billion, including a \$2.35 billion letter of credit sub-facility (Revolving Credit Facility) and term loans of \$1.897 billion (Term Loan B-1 Facility) and \$1.901 billion (Term Loan B-3 Facility).

In June 2019, Vistra Operations used the net proceeds from the Senior Secured Notes Offering described below to repay \$889 million under the Term Loan B-1 Facility, the entire amount outstanding of \$977 million under Term Loan B-2 Facility (and together with the Term Loan B-1 Facility and the Term Loan B-3 Facility, the Term Loan B Facility) and \$134 million under the Term Loan B-3 Facility. We recorded an extinguishment loss of \$4 million on the transactions in the three months ended June 30, 2019 .

These amounts reflect amendments to the Vistra Operations Credit Facilities in March 2019 and May 2019 whereby we obtained \$225 million of incremental Revolving Credit Facility commitments. The letter of credit sub-facility was also increased by \$50 million . Fees and expenses related to the amendments to the Vistra Operations Credit Facilities totaled \$2 million in the six months ended June 30, 2019 , which were capitalized as a noncurrent asset.

These amounts also reflect an amendment to the Vistra Operations Credit Facilities in June 2018 whereby we incurred \$2.050 billion of borrowings under the new Term Loan B-3 Facility and obtained \$1.640 billion of incremental Revolving Credit Facility commitments. The letter of credit sub-facility was also increased by \$1.585 billion . The maturity date of the Revolving Credit Facility was extended from August 4, 2021 to June 14, 2023. As discussed below, the proceeds from the Term Loan B-3 Facility were used to repay borrowings under the credit agreement that Vistra Energy assumed from Dynegy in connection with the Merger. Additionally, letter of credit term loans totaling \$500 million (Term Loan C Facility) were repaid using \$500 million of cash from collateral accounts used to backstop letters of credit. Fees and expenses related to the amendment to the Vistra Operations Credit Facilities totaled \$42 million in the six months ended June 30, 2018 , of which \$23 million was recorded as interest expense and other charges on the statements of consolidated income (loss), \$9 million was capitalized as a reduction in the carrying amount of the debt and \$10 million was capitalized as a noncurrent asset.

The Vistra Operations Credit Facilities and related available capacity at June 30, 2019 are presented below.

Vistra Operations Credit Facilities	Maturity Date	June 30, 2019		
		Facility Limit	Cash Borrowings	Available Capacity
Revolving Credit Facility (a)	June 14, 2023	\$ 2,725	\$ —	\$ 2,173
Term Loan B-1 Facility	August 4, 2023	1,897	1,897	—
Term Loan B-3 Facility	December 31, 2025	1,901	1,901	—
Total Vistra Operations Credit Facilities		\$ 6,523	\$ 3,798	\$ 2,173

- (a) Facility to be used for general corporate purposes. Facility includes a \$2.35 billion letter of credit sub-facility, of which \$552 million of letters of credit were outstanding at June 30, 2019 and which reduce our available capacity.

In February 2018 and June 2018, certain pricing terms for the Vistra Operations Credit Facilities were amended. We accounted for these transactions as modifications of debt. At June 30, 2019 , cash borrowings under the Revolving Credit Facility would bear interest based on applicable LIBOR rates, plus a fixed spread of 1.75% , and there were no outstanding borrowings. Letters of credit issued under the Revolving Credit Facility bear interest of 1.75% . Amounts borrowed under the Term Loan B-1 and B-3 Facilities bear interest based on applicable LIBOR rates plus fixed spreads of 2.00% and 2.00% , respectively. At June 30, 2019 , the weighted average interest rates before taking into consideration interest rate swaps on outstanding borrowings was 4.40% and 4.40% under the Term Loan B-1 and B-3 Facilities, respectively. The Vistra Operations Credit Facilities also provide for certain additional fees payable to the agents and lenders, including fronting fees with respect to outstanding letters of credit and availability fees payable with respect to any unused portion of the available Revolving Credit Facility.

Obligations under the Vistra Operations Credit Facilities are secured by a lien covering substantially all of Vistra Operations' (and its subsidiaries') consolidated assets, rights and properties, subject to certain exceptions set forth in the Vistra Operations Credit Facilities, provided that the amount of loans outstanding under the Vistra Operations Credit Facilities that may be secured by a lien covering certain principal properties of the Company is expressly limited by the terms of the Vistra Operations Credit Facilities.

The Vistra Operations Credit Facilities also permit certain hedging agreements to be secured on a pari-passu basis with the Vistra Operations Credit Facilities in the event those hedging agreements met certain criteria set forth in the Vistra Operations Credit Facilities.

The Vistra Operations Credit Facilities provide for affirmative and negative covenants applicable to Vistra Operations (and its restricted subsidiaries), including affirmative covenants requiring it to provide financial and other information to the agents under the Vistra Operations Credit Facilities and to not change its lines of business, and negative covenants restricting Vistra Operations' (and its restricted subsidiaries') ability to incur additional indebtedness, make investments, dispose of assets, pay dividends, grant liens or take certain other actions, in each case, except as permitted in the Vistra Operations Credit Facilities. Vistra Operations' ability to borrow under the Vistra Operations Credit Facilities is subject to the satisfaction of certain customary conditions precedent set forth therein.

The Vistra Operations Credit Facilities provide for certain customary events of default, including events of default resulting from non-payment of principal, interest or fees when due, material breaches of representations and warranties, material breaches of covenants in the Vistra Operations Credit Facilities or ancillary loan documents, cross-defaults under other agreements or instruments and the entry of material judgments against Vistra Operations. Solely with respect to the Revolving Credit Facility, and solely during a compliance period (which, in general, is applicable when the aggregate revolving borrowings and issued revolving letters of credit (in excess of \$300 million) exceed 30% of the revolving commitments), the agreement includes a covenant that requires the consolidated first lien net leverage ratio, which is based on the ratio of net first lien debt compared to an EBITDA calculation defined under the terms of the facilities, not to exceed 4.25 to 1.00. Although the period ended June 30, 2019 was not a compliance period, we would have been in compliance with this financial covenant if it was required to be tested at such date. Upon the existence of an event of default, the Vistra Operations Credit Facilities provide that all principal, interest and other amounts due thereunder will become immediately due and payable, either automatically or at the election of specified lenders.

Interest Rate Swaps — Effective January 2017, we entered into \$3.0 billion notional amount of interest rate swaps to hedge a portion of our exposure to our variable rate debt. The interest rate swaps expire in July 2023. In May 2018 and June 2018, we entered into \$3.0 billion notional amount of interest rate swaps that become effective in July 2023 and expire in July 2026.

In June 2018, we completed the novation of \$1.959 billion notional amount of Vistra Energy (legacy Dynegy) interest rate swaps to Vistra Operations. In June 2019, we terminated \$841 million notional amount of these interest rate swaps. At June 30, 2019, \$720 million notional amount of these interest rate swaps remained in effect with an expiration date of February 2024.

The interest rate swaps that are currently effective and expire in July 2023 and February 2024 effectively fix the interest rates between 3.92% and 4.16% on \$3.720 billion of our variable rate debt. The interest rate swaps that become effective in July 2023 and expire in July 2026 effectively fix the interest rates between 4.97% and 5.04% on \$3.0 billion of our variable rate debt during the period. The interest rate swaps are secured by a first lien secured interest on a pari-passu basis with the Vistra Operations Credit Facilities.

Alternate Letter of Credit Facilities

Two alternate letter of credit facilities (each, an Alternative LOC Facility, and collectively, the Alternate LOC Facilities) with an aggregate facility limit of \$500 million became effective in the six months ended June 30, 2019. At June 30, 2019, \$500 million of letters of credit were outstanding under the Alternate LOC Facilities. Of the total facility limit, \$250 million matures in December 2020 and \$250 million matures in December 2021.

Vistra Energy (legacy Dynegy) Credit Agreement

On the Merger Date, Vistra Energy assumed the obligations under Dynegy's \$3.563 billion credit agreement consisting of a \$2.018 billion senior secured term loan facility due 2024 and a \$1.545 billion senior secured revolving credit facility. As of the Merger Date, there were no cash borrowings and \$656 million of letters of credit outstanding under the senior secured revolving credit facility. On April 23, 2018, \$70 million of the senior secured revolving credit facility matured. In June 2018, the \$2.018 billion senior secured term loan facility due 2024 was repaid using proceeds from the Term Loan B-3 Facility. In addition, all letters of credit outstanding under the senior secured revolving credit facility were replaced with letters of credit under the amended Vistra Operations Credit Facilities discussed above, and the revolving credit facility assumed from Dynegy in connection with the Merger was paid off in full and terminated.

Vistra Operations Senior Secured Notes

In June 2019, Vistra Operations issued and sold \$2.0 billion aggregate principal amount of senior secured notes (Senior Secured Notes), consisting of \$1.2 billion aggregate principal amount of 3.55% senior secured notes due 2024 (3.55% senior secured notes) at a price to the public of 99.807% of their face value and \$800 million aggregate principal amount of 4.30% senior secured notes due 2029 (4.30% senior secured notes) at a price to the public of 99.784% of their face value in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (Senior Secured Notes Offering). The Senior Secured Notes were sold pursuant to a purchase agreement by and among Vistra Operations, certain direct and indirect subsidiaries of Vistra Operations and Citigroup Global Markets Inc., as representative of the several initial purchasers. Fees and expenses related to the offering totaled \$20 million in the three months ended June 30, 2019, which were capitalized as a reduction in the carrying amount of the debt. Net proceeds from the Senior Secured Notes Offering totaling \$1.976 billion, together with cash on hand, were used to prepay certain amounts outstanding and accrued interest (together with fees and expenses) under the Vistra Operations Credit Facilities' Term Loan B Facility. Interest on the Senior Secured Notes is payable in cash semiannually in arrears on January 15 and July 15 beginning January 15, 2020.

The Senior Secured Notes are and will be fully and unconditionally guaranteed by certain of Vistra Operations' current and future subsidiaries that also guarantee the Vistra Operations Credit Facilities. The Senior Secured Notes are secured by a first-priority security interest in the same collateral that is pledged for the benefit of the lenders under the Vistra Operations Credit Facilities, which consists of a substantial portion of the property, assets and rights owned by Vistra Operations and certain direct and indirect subsidiaries of Vistra Operations as subsidiary guarantors (collectively, the Guarantor Subsidiaries) as well as the stock of Vistra Operations held by Vistra Intermediate. The collateral securing the Senior Secured Notes will be released if Vistra Operations' senior, unsecured long-term debt securities obtain an investment grade rating from two out of the three rating agencies, subject to reversion if such rating agencies withdraw the investment grade rating of Vistra Operations' senior, unsecured long-term debt securities or downgrade such rating below investment grade.

Vistra Operations Senior Unsecured Notes

In June 2019, Vistra Operations issued and sold \$1.3 billion aggregate principal amount of 5.00% senior unsecured notes due 2027 (5.00% senior notes) in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the June 2019 Notes Offering). The 5.00% senior notes were sold pursuant to a purchase agreement by and among Vistra Operations, the Guarantor Subsidiaries and Goldman Sachs & Co. LLC, as representative of the several initial purchasers. Fees and expenses related to the offering totaled \$13 million in the three months ended June 30, 2019, which were capitalized as a reduction in the carrying amount of the debt. Net proceeds from the June 2019 Notes Offering totaling approximately \$1.287 billion, together with cash on hand, were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with (i) the June 2019 Tender Offer described below and (ii) the redemption of approximately \$306 million of our outstanding 7.375% senior unsecured notes due 2022 (7.375% senior notes) and approximately \$87 million of our 7.625% senior unsecured notes due 2024 (7.625% senior notes) in July 2019. The 5.00% senior notes mature in July 2027, with interest payable in cash semiannually in arrears on January 31 and July 31 beginning January 31, 2020.

In February 2019, Vistra Operations issued and sold \$1.3 billion aggregate principal amount of 5.625% senior unsecured notes due 2027 (5.625% senior notes) in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the February 2019 Notes Offering). The 5.625% senior notes were sold pursuant to a purchase agreement by and among Vistra Operations, the Guarantor Subsidiaries and J.P. Morgan Securities LLC, as representative of the several initial purchasers. Fees and expenses related to the offering totaled \$16 million in the three months ended March 31, 2019, which were capitalized as a reduction in the carrying amount of the debt. Net proceeds from the February 2019 Notes Offering totaling approximately \$1.287 billion, together with cash on hand, were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with (i) the February 2019 Tender Offer described below, (ii) the redemption of approximately \$35 million aggregate principal amount of our 7.375% senior notes and (iii) the redemption of approximately \$25 million aggregate principal amount of our outstanding 8.034% senior unsecured notes due 2024 (8.034% senior notes). The 5.625% senior notes mature in February 2027, with interest payable in cash semiannually in arrears on February 15 and August 15 beginning August 15, 2019.

In August 2018, Vistra Operations issued \$1.0 billion principal amount of 5.500% senior unsecured notes due 2026 (5.500% senior notes, and together with the 5.00% senior notes and the 5.625% senior notes, the Vistra Operations Senior Unsecured Notes) in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the 2018 Notes Offering). The 5.500% senior notes were sold pursuant to a purchase agreement by and among Vistra Operations, the Guarantor Subsidiaries and Citigroup Global Markets Inc., as representative of the several initial purchasers. Fees and expenses related to the offering totaled \$12 million in the three months ended September 30, 2018, which were capitalized as a reduction in the carrying amount of the debt. Net proceeds from the 2018 Notes Offering totaling approximately \$990 million, together with cash on hand and cash received from the funding of the Receivables Facility (see Note 10), were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with the 2018 Tender Offers described below. The 5.500% senior notes mature in September 2026, with interest payable in cash semiannually in arrears on March 1 and September 1 beginning March 1, 2019.

The indentures governing the 5.00% senior notes, the 5.625% senior notes and the 5.500% senior notes (collectively, as each may be amended or supplemented from time to time, the Vistra Operations Senior Unsecured Indentures) provide for the full and unconditional guarantee by the Guarantor Subsidiaries of the punctual payment of the principal and interest on such notes. The Vistra Operations Senior Unsecured Indentures contain certain covenants and restrictions, including, among others, restrictions on the ability of the Issuer and its subsidiaries, as applicable, to create certain liens, merge or consolidate with another entity, and sell all or substantially all of their assets.

Vistra Energy Senior Unsecured Notes

Bond Repurchase Program — In November 2018, our board of directors (the Board) authorized a bond repurchase program under which up to \$200 million principal amount of outstanding Vistra Energy Senior Unsecured Notes could be repurchased. Through June 30, 2019, \$119 million principal amount of Vistra Energy Senior Unsecured Notes had been repurchased. No repurchases were made in the three and six months ended June 30, 2019.

June 2019 Tender Offer — In June 2019, Vistra Energy used the net proceeds from the June 2019 Notes Offering to fund a cash tender offer (the June 2019 Tender Offer) to purchase for cash \$845 million aggregate principal amount of certain notes assumed in the Merger, including \$173 million of 7.375% senior notes and \$672 million of 7.625% senior notes. We recorded an extinguishment gain of \$7 million on the transactions in the three months ended June 30, 2019. In July 2019, Vistra Energy accepted and settled an additional approximately \$1 million aggregate principal amount of outstanding 7.625% senior notes that were tendered after the early tender date of the 2019 Tender Offer.

February 2019 Tender Offer and Consent Solicitation — In February 2019, Vistra Energy used the net proceeds from the February 2019 Notes Offering to fund a cash tender offer (the February 2019 Tender Offer) to purchase for cash \$1.193 billion aggregate principal amount of 7.375% senior notes assumed in the Merger. We recorded an extinguishment gain of \$7 million on the transactions in the three months ended March 31, 2019.

In connection with the February 2019 Tender Offer, Vistra Energy also commenced solicitation of consents from holders of the 7.375% senior notes. Vistra Energy received the requisite consents from the holders of the 7.375% senior notes and amended the indenture governing these senior notes to, among other things, eliminate substantially all of the restrictive covenants and certain events of default.

August 2018 Tender Offers and Consent Solicitations — In August 2018, Vistra Energy used the net proceeds from the 2018 Notes Offering, proceeds from the Receivables Facility (see Note 10) and cash on hand to fund cash tender offers (the 2018 Tender Offers) to purchase for cash \$1.542 billion aggregate principal amount of Vistra Energy Senior Unsecured Notes assumed in the Merger. We recorded an extinguishment loss of \$27 million on the transactions in the three months ended September 30, 2018. Notes purchased consisted of the following:

- \$26 million of 7.625% senior notes;
- \$163 million of 8.034% senior notes;
- \$669 million of 8.000% senior unsecured notes due 2025 (8.000% senior notes), and
- \$684 million of 8.125% senior unsecured notes due 2026 (8.125% senior notes).

In connection with the 2018 Tender Offers, Vistra Energy also commenced solicitations of consents from holders of the 7.375% senior notes, the 7.625% senior notes, the 8.034% senior notes, the 8.000% senior notes and the 8.125% senior notes to amend certain provisions of the applicable indentures governing each series of senior notes and the registration rights agreement with respect to the 8.125% senior notes. Vistra Energy received the requisite consents from the holders of the 8.034% senior notes, the 8.000% senior notes and the 8.125% senior notes (collectively, the Consent Senior Notes) and amended (a) the indentures governing each series of the applicable senior notes to, among other things, eliminate substantially all of the restrictive covenants and certain events of default and (b) the registration rights agreement with respect to the 8.125% senior notes to remove, among other things, the requirement that Vistra Energy commence an exchange offer to issue registered securities in exchange for the existing, nonregistered notes.

Assumption of Senior Notes in Merger — On the Merger Date, Vistra Energy assumed \$6.138 billion principal amount of Dynegey's senior unsecured notes. In May 2018, \$850 million of outstanding 6.75% senior unsecured notes due 2019 were redeemed at a redemption price of 101.688% of the aggregate principal amount, plus accrued and unpaid interest up to but not including the date of redemption. Fees and expenses related to the redemption totaled \$14 million in the three months ended June 30, 2018 and were recorded as interest expense and other charges on the condensed statements of consolidated income (loss). In June 2018, each of the Company's subsidiaries that guaranteed the Vistra Operations Credit Facilities (and did not already guarantee the senior notes) provided a guarantee on the senior notes that remained outstanding.

The senior notes that remain outstanding after the closing of the Tender Offers are unsecured and unsubordinated obligations of Vistra Energy and are guaranteed by substantially all of its current and future wholly owned domestic subsidiaries that from time to time are a borrower or guarantor under the agreement governing the Vistra Operations Credit Facilities (Credit Facilities Agreement) (see Note 20). Except with respect to the Consent Senior Notes, the respective indentures of the senior notes of Vistra Energy (collectively, as each may be amended or supplemented from time to time, the Vistra Energy Senior Unsecured Indentures) limit, among other things, the ability of the Company or any of the guarantors to create liens upon any principal property to secure debt for borrowed money in excess of, among other limitations, 30% of total assets. The Vistra Energy Senior Unsecured Indentures also contain customary events of default which would permit the holders of the applicable series of senior notes to declare such notes to be immediately due and payable if not cured within applicable grace periods, including the failure to make timely principal or interest payments on such notes or (except with respect to the Consent Senior Notes) other indebtedness aggregating \$100 million or more, and, except with respect to the Consent Senior Notes, the failure to satisfy covenants, and specified events of bankruptcy and insolvency.

Amortizing Notes

On the Merger Date, Vistra Energy assumed the obligations of Dynegey's senior unsecured amortizing note (Amortizing Notes) that matured on July 1, 2019. The Amortizing Notes were issued in connection with the issuance of the tangible equity units (TEUs) by Dynegey (see Note 14). Each installment payment per Amortizing Note was paid in cash and constituted a partial repayment of principal and a payment of interest, computed at an annual rate of 7.00%. Interest was calculated on the basis of a 360-day year consisting of twelve 30-day months. Payments were applied first to the interest due and payable and then to the reduction of the unpaid principal amount, allocated as set forth in the indenture (Amortizing Notes Indenture). On the maturity date, the Company paid all amounts due under the Amortizing Notes Indenture and the Amortizing Notes Indenture ceased to be of further force and effect.

Forward Capacity Agreements

On the Merger Date, the Company assumed the obligation of Dynegey's agreements under which a portion of the PJM capacity that cleared for Planning Years 2018-2019, 2019-2020 and 2020-2021 was sold to a financial institution (Forward Capacity Agreements). The buyer in this transaction will receive capacity payments from PJM during the Planning Years 2019-2020 and 2020-2021 in the amounts of \$112 million and \$110 million , respectively. We will continue to be subject to the performance obligations as well as any associated performance penalties and bonus payments for those planning years. As a result, this transaction is accounted for as long-term debt of \$222 million with an implied interest rate of 3.36% .

Equipment Financing Agreements

On the Merger Date, the Company assumed Dynegy's Equipment Financing Agreements. Under certain of our contractual service agreements in which we receive maintenance and capital improvements for our gas-fueled generation fleet, we have obtained parts and equipment intended to increase the output, efficiency and availability of our generation units. We have financed these parts and equipment under agreements with maturities ranging from 2019 to 2026. The portion of future payments attributable to principal will be classified as cash outflows from financing activities, and the portion of future payments attributable to interest will be classified as cash outflows from operating activities in our condensed statements of consolidated cash flows.

Maturities

Long-term debt maturities (including mandatory amortization of the Term Loan B Facility) at June 30, 2019 are as follows:

	June 30, 2019
Remainder of 2019	\$ 93
2020	144
2021	70
2022	321
2023	2,408
Thereafter	8,322
Unamortized premiums, discounts and debt issuance costs	(4)
Total long-term debt, including amounts due currently	<u>\$ 11,354</u>

12. LEASES

Vistra has operating leases for real estate, rail cars, rental tanks and equipment. Our leases have remaining lease terms for 1 to 38 years. Our leases include options to renew up to 14 years. Certain leases also contain options to terminate the lease.

Lease Cost

The following table presents costs related to lease activities:

	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Operating lease cost	\$ 3	\$ 7
Finance lease:		
Finance lease right-of-use asset amortization	1	2
Interest on lease liabilities	1	1
Total finance lease cost	<u>2</u>	<u>3</u>
Variable lease cost (a)	6	12
Short-term lease cost	8	13
Sublease income (b)	(2)	(4)
Net lease cost	<u>\$ 17</u>	<u>\$ 31</u>

(a) Represents coal stockpile management services, common area maintenance services and rail car payments based on the number of rail cars used.

(b) Represents sublease income related to real estate leases.

Balance Sheet Information

The following table presents lease related balance sheet information:

	June 30, 2019
Lease assets	
Operating lease right-of-use assets	\$ 34
Finance lease right-of-use assets (net of accumulated depreciation)	61
Total lease right-of-use assets	95
Current lease liabilities	
Operating lease liabilities	13
Finance lease liabilities	5
Total current lease liabilities	18
Noncurrent lease liabilities	
Operating lease liabilities	40
Finance lease liabilities	74
Total noncurrent lease liabilities	114
Total lease liabilities	\$ 132

Cash Flow and Other Information

The following table presents lease related cash flow and other information:

	Six Months Ended June 30, 2019
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows from operating leases	\$ 7
Operating cash flow from finance leases	2
Finance cash flow from finance leases	1
Non-cash disclosure upon commencement of new lease	
Right-of-use assets obtained in exchange for new operating lease liabilities	72
Right-of-use assets obtained in exchange for new finance lease liabilities	15
Non-cash disclosure upon modification of existing lease	
Modification of operating lease right-of-use assets	(36)
Modification of finance lease right-of-use assets	50

Weighted Average Remaining Lease Term

The following table presents weighted average remaining lease term information:

	June 30, 2019
Weighted average remaining lease term	
Operating lease	8 years
Finance lease	18 years
Weighted average discount rate	
Operating lease	6.04%
Finance lease	6.07%

Maturity of Lease Liabilities

The following table presents maturity of lease liabilities:

	Operating lease	Finance lease	Total lease
Remainder of 2019	\$ 7	\$ 4	\$ 11
2020	14	9	23
2021	9	9	18
2022	7	9	16
2023	6	9	15
Thereafter	22	79	101
Total lease payments	65	119	184
Less: Interest	(12)	(40)	(52)
Present value of lease liabilities	\$ 53	\$ 79	\$ 132

As of June 30, 2019 , we have no material operating or finance leases that have not yet commenced.

13. COMMITMENTS AND CONTINGENCIES**Guarantees**

We have entered into contracts, including the assumed Dynegy senior unsecured notes described above, that contain guarantees to unaffiliated parties that could require performance or payment under certain conditions. As of June 30, 2019 , there are no material outstanding claims related to our guarantee obligations, and we do not anticipate we will be required to make any material payments under these guarantees.

Letters of Credit

At June 30, 2019 , we had outstanding letters of credit totaling \$1.052 billion as follows:

- \$896 million to support commodity risk management collateral requirements in the normal course of business, including over-the-counter and exchange-traded transactions and collateral postings with ISOs or RTOs;
- \$46 million to support executory contracts and insurance agreements;
- \$55 million to support our REP financial requirements with the PUCT, and
- \$55 million for other credit support requirements.

Surety Bonds

At June 30, 2019 , we had outstanding surety bonds totaling \$27 million to support performance under various contracts and legal obligations in the normal course of business.

Litigation

Gas Index Pricing Litigation — We, through our subsidiaries, and other energy companies are named as defendants in several lawsuits claiming damages resulting from alleged price manipulation through false reporting of natural gas prices to various index publications, wash trading and churn trading from 2000-2002. The cases allege that the defendants engaged in an antitrust conspiracy to inflate natural gas prices in three states (Kansas, Missouri and Wisconsin) during the relevant time period and seek damages under the respective state antitrust statutes. The cases had been consolidated (along with other similar cases) in a multi-district litigation (MDL) proceeding in the U.S. District Court for Nevada, but in January 2019 the MDL judge issued an order remanding the consolidated cases back to their respective courts of origin. Along with the other defendants, we had previously reached settlement terms in the Kansas and Missouri class action cases, and plaintiffs in those cases filed a Notice of Settlement with the judge in the multi-district court proceeding. We remain as defendants in two putative class actions (Wisconsin) and one individual action (Kansas) on behalf of Farmland Industries, Inc. While we cannot predict the outcome of these legal proceedings, or estimate a range of costs, they could have a material impact on our results of operations, liquidity or financial condition.

Advatech Dispute — In September 2016, Illinois Power Generating Company (Genco), terminated its Second Amended and Restated Newton Flue Gas Desulfurization System Engineering, Procurement, Construction and Commissioning Services Contract dated as of December 15, 2014 with Advatech, LLC (Advatech). Advatech issued Genco its final invoice in September 2016 totaling \$81 million. Genco contested the invoice in October 2016 and believes the proper amount is less than \$1 million. In October 2016, Advatech initiated the dispute resolution process under the contract and filed for arbitration in March 2017. The arbitration hearing occurred in October 2018, and the arbitration panel issued a final award in June 2019, including pre-award and post-award interest and fees totaling approximately \$46 million, of which \$42 million was recorded as a liability as part of our purchase price allocation of the Merger, \$2 million was recorded as interest expense in our condensed statements of consolidated income (loss) and \$2 million was recorded as selling, general and administrative expense in our condensed statements of consolidated income (loss). In June 2019, Genco moved to vacate the award in the U.S. District Court for the Southern District of Illinois, and Advatech moved to confirm the award in the U.S. District Court for the Northern District of Illinois.

Wood River Rail Dispute — In November 2017, Dynegy Midwest Generation, LLC (DMG) received notification that BNSF Railway Company and Norfolk Southern Railway Company were initiating dispute resolution related to DMG's suspension of its Wood River Rail Transportation Agreement with the railroads. Settlement discussions required under the dispute resolution process have been unsuccessful. In March 2018, BNSF Railway Company and Norfolk Southern Railway Company filed a demand for arbitration. The arbitration hearing on the merits is scheduled for February 2020. We dispute the railroads' allegations and will defend our position vigorously. While we cannot predict the outcome of this legal proceeding, or estimate a range of costs, it could have a material impact on our results of operations, liquidity or financial condition.

Greenhouse Gas Emissions

In August 2015, the EPA finalized rules to address greenhouse gas emissions (GHG) from electricity generation units, referred to as the Clean Power Plan, including rules for existing facilities that would establish state-specific emissions rate goals to reduce nationwide CO₂ emissions. Various parties (including Luminant) filed petitions for review in the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court) and subsequently, in January 2016, a coalition of state, industry (including Luminant) and other parties filed applications with the U.S. Supreme Court (Supreme Court) asking that the Supreme Court stay the rule pending review by the D.C. Circuit Court. In February 2016, the Supreme Court stayed the rule. After oral argument in September 2016, the case was placed in abeyance and remains pending before the D.C. Circuit Court. In July 2019, petitioners filed a joint motion to dismiss in light of the EPA's new rule, the Affordable Clean Energy rule, that replaces the Clean Power Plan discussed below. That motion remains pending before the D.C. Circuit Court.

In July 2019, the EPA finalized a rule to repeal the Clean Power Plan, with new regulations addressing GHG emissions from existing coal-fueled electric generation units, referred to as the Affordable Clean Energy (ACE) rule. The ACE rule develops emission guidelines that states must use when developing plans to regulate GHG emissions from existing coal-fueled electric generating units. States must submit their plans for regulating GHG emissions from existing facilities by July 2022. Environmental groups filed a petition for review of the ACE rule and the repeal of the Clean Power Plan in the D.C. Circuit Court. Additionally, in December 2018, the EPA issued proposed revisions to the emission standards for new, modified and reconstructed units. Vistra submitted comments on that proposed rulemaking. While we cannot predict the outcome of these rulemakings and related legal proceedings, or estimate a range of reasonably probable costs, the rules, if implemented, could have a material impact on our results of operations, liquidity or financial condition.

Regional Haze — Reasonable Progress and Best Available Retrofit Technology (BART) for Texas

In January 2016, the EPA issued a final rule approving in part and disapproving in part Texas's 2009 State Implementation Plan (SIP) as it relates to the reasonable progress component of the Regional Haze program and issuing a Federal Implementation Plan (FIP). The EPA's emission limits in the FIP assume additional control equipment for specific lignite/coal-fueled generation units across Texas, including new flue gas desulfurization systems (scrubbers) at seven electricity generation units (including Big Brown Units 1 and 2, Monticello Units 1 and 2 and Coletto Creek) and upgrades to existing scrubbers at seven generation units (including Martin Lake Units 1, 2 and 3, Monticello Unit 3 and Sandow Unit 4).

In March 2016, various parties (including Luminant and the State of Texas) filed petitions for review in the U.S. Court of Appeals for the Fifth Circuit (Fifth Circuit Court) challenging the FIP's Texas requirements. In July 2016, the Fifth Circuit Court granted motions to stay the rule pending final review of the petitions for review. In March 2017, the Fifth Circuit Court granted a motion by the EPA to remand the rule back to the EPA for reconsideration. The stay of the rule (and the emission control requirements) remains in effect. The retirements of our Monticello, Big Brown and Sandow 4 plants should have a favorable impact on this rulemaking and litigation. While we cannot predict the outcome of the rulemaking and legal proceedings, or estimate a range of reasonably possible costs, the result could have a material impact on our results of operations, liquidity or financial condition.

In September 2017, the EPA signed a final rule addressing BART for Texas electricity generation units, with the rule serving as a partial approval of Texas's 2009 SIP and a partial FIP. For SO₂, the rule creates an intrastate Texas emission allowance trading program as a "BART alternative" that operates in a similar fashion to a CSAPR trading program. The program includes 39 generating units (including our Martin Lake, Big Brown, Monticello, Sandow 4, Coletto Creek, Stryker 2 and Graham 2 plants). The compliance obligations in the program started on January 1, 2019. We believe the retirements of our Monticello, Big Brown and Sandow 4 plants will enhance our ability to comply with this BART rule for SO₂. For NO_x, the rule adopts the CSAPR's ozone program as BART and for particulate matter, the rule approves Texas's SIP that determines that no electricity generation units are subject to BART for particulate matter. Various parties filed a petition challenging the rule in the Fifth Circuit Court as well as a petition for reconsideration filed with the EPA. Luminant intervened on behalf of the EPA in the Fifth Circuit Court action. In March 2018, the Fifth Circuit Court abated its proceedings until the EPA concludes the reconsideration process. In August 2018, the EPA issued a proposed rule affirming the prior BART final rule and seeking comments on that proposal, which were due in October 2018. While we cannot predict the outcome of the rulemaking and legal proceedings, we believe the rule, if ultimately implemented or upheld as issued, will not have a material impact on our results of operations, liquidity or financial condition.

Affirmative Defenses During Malfunctions

In May 2015, the EPA finalized a rule requiring 36 states, including Texas, Illinois and Ohio, to remove or replace either EPA-approved exemptions or affirmative defense provisions for excess emissions during upset events and unplanned maintenance and startup and shutdown events, referred to as the SIP Call. Various parties (including Luminant, the State of Texas and the State of Ohio) filed petitions for review of the EPA's final rule, and all of those petitions were consolidated in the D.C. Circuit Court. In April 2017, the D.C. Circuit Court ordered the case to be held in abeyance. In April 2019, the EPA Region 6 proposed a rule to withdraw the SIP Call with respect to the Texas affirmative defense provisions. We submitted comments on that proposed rulemaking. We cannot predict the timing or outcome of this proceeding, or estimate a range of reasonably possible costs, but implementation of the 2015 rule as finalized could have a material impact on our results of operations, liquidity or financial condition.

Illinois Multi-Pollutant Standards (MPS)

In 2007, our MISO coal-fueled generation facilities became subject to the Illinois multi-pollutant standard rule (MPS rule), which requires compliance with NO_x, SO₂ and mercury emissions limits. We are in compliance with the MPS rule. In October 2017, the Illinois Environmental Protection Agency (IEPA) filed a proposed rule with the Illinois Pollution Control Board (IPCB) that would amend the MPS rule by replacing the two separate group-wide annual emission rate limits that currently apply to our eight downstate Illinois coal-fueled stations with tonnage limits for both SO₂ (annual) and NO_x (annual and seasonal) that apply to the eight stations as a single group. In March 2019, we were asked to agree to even further reduced emission caps and in order to move the rule forward, committed to 2,000 MW of coal plant retirements following finalization of the rule. Under the proposal, allowable annual emissions of SO₂ would be 48% lower than the current rule and NO_x emission would be 42% lower. All other federal and state air quality regulations, including health-based standards, would remain unchanged and in place. The proposed rule also would impose new requirements to ensure the continuous operation of existing selective catalytic reduction (SCR) control systems during the ozone season, require SCR-controlled units to meet an ozone season NO_x emission rate limit, and set an additional, site-specific annual SO₂ limit for our Joppa Power Station. In June 2019, the IPCB voted to approve the rule and it now awaits review by the Joint Committee on Administrative Rules. We are supportive of the proposed rule as it would provide operational flexibility to our MISO fleet while also providing a number of regulatory and environmental benefits. We expect the rule to be finalized in 2019.

SO₂ Designations for Texas

In November 2016, the EPA finalized its nonattainment designations for counties surrounding our Big Brown, Monticello and Martin Lake generation plants. The final designations require Texas to develop nonattainment plans for these areas. In February 2017, the State of Texas and Luminant filed challenges to the nonattainment designations in the Fifth Circuit Court. Subsequently, in October 2017, the Fifth Circuit Court granted the EPA's motion to hold the case in abeyance considering the EPA's representation that it intended to revisit the nonattainment rule. In December 2017, the TCEQ submitted a petition for reconsideration to the EPA. In addition, with respect to Monticello and Big Brown, the retirement of those plants should favorably impact our legal challenge to the nonattainment designations in that the nonattainment designations for Freestone County and Titus County are based solely on the Sierra Club modeling, which we dispute, of SO₂ emissions from Monticello and Big Brown. Regardless, considering these retirements, the nonattainment designations for those counties are no longer supported. While we cannot predict the outcome of this matter, or estimate a range of reasonably possible costs, the result could have a material impact on our results of operations, liquidity or financial condition.

Effluent Limitation Guidelines (ELGs)

In November 2015, the EPA revised the ELGs for steam electricity generation facilities, which will impose more stringent standards (as individual permits are renewed) for wastewater streams, such as flue gas desulfurization (FGD), fly ash, bottom ash and flue gas mercury control wastewaters. Various parties filed petitions for review of the ELG rule, and the petitions were consolidated in the Fifth Circuit Court. In April 2017, the EPA granted petitions requesting reconsideration of the ELG final rule and administratively stayed the rule's compliance date deadlines. In August 2017, the EPA announced that its reconsideration of the 2015 ELG final rule would be limited to a review of the effluent limitations applicable to FGD and bottom ash wastewaters and the agency subsequently postponed the earliest compliance dates in the 2015 ELG Rule for the application of effluent limitations for FGD and bottom ash wastewaters from November 1, 2018 to November 1, 2020. Based on these administrative developments, the Fifth Circuit Court agreed to sever and hold in abeyance challenges to effluent limitations. The remainder of the case proceeded, and in April 2019 the Fifth Circuit Court vacated and remanded portions of the EPA's ELG rule pertaining to effluent limitations for legacy wastewater and leachate. The EPA has not yet proposed or finalized a rule reconsidering the FGD and bottom ash wastewater provisions of the 2015 ELG rule.

Given the EPA's decision to reconsider the FGD and bottom ash wastewater provisions of the ELG rule, the rule postponing the ELG rule's earliest compliance dates for those provisions, the uncertainty stemming from the vacatur of the effluent limitations for legacy wastewater and leachate, and the intertwined relationship of the ELG rule with the Coal Combustion Residuals rule discussed below, which is also being reconsidered by the EPA, as well as pending legal challenges concerning both rules, substantial uncertainty exists regarding our projected capital expenditures for ELG compliance, including the timing of such expenditures. While we cannot predict the outcome of this matter, or estimate a range of costs, it could have a material impact on our results of operations, liquidity or financial condition.

New Source Review and CAA Matters

New Source Review — Since 1999, the EPA has engaged in a nationwide enforcement initiative to determine whether coal-fueled power plants failed to comply with the requirements of the New Source Review (NSR) and New Source Performance Standard provisions under the CAA when the plants implemented changes. The EPA's NSR initiative focuses on whether projects performed at power plants triggered various permitting requirements, including the need to install pollution control equipment.

In August 2013, the U.S. Department of Justice (DOJ), acting as the attorneys for the EPA, filed a civil enforcement lawsuit against Luminant in federal district court in Dallas, alleging violations of the CAA, including its NSR standards, at our Big Brown and Martin Lake generation facilities. The lawsuit requests (i) the maximum civil penalties available under the CAA to the government of up to \$32,500 to \$37,500 per day for each alleged violation, depending on the date of the alleged violation, and (ii) injunctive relief, including an order to apply for pre-construction permits which may require the installation of best available control technology at the affected units. In August 2015, the district court granted Luminant's motion to dismiss seven of the nine claims asserted by the EPA in the lawsuit.

In January 2017, the EPA dismissed its two remaining claims with prejudice and the district court entered final judgment in Luminant's favor. In March 2017, the EPA and the Sierra Club appealed the final judgment to the Fifth Circuit Court. In October 2018, the Fifth Circuit Court affirmed in part, reversed in part, and remanded to the district court. The Fifth Circuit Court's decision held that the district court properly dismissed all of the civil penalties as time-barred. The Fifth Circuit Court further held that the grounds cited by the district court did not support dismissal of the injunctive relief claims at this early stage of the case and remanded the case back to the district court for further consideration. In November 2018, we filed a petition for rehearing en banc on two issues and the EPA has filed a response to that petition. In July 2019, the full Fifth Circuit Court granted our en banc petition and oral argument will be held in September 2019. We believe that we have complied with all requirements of the CAA and intend to continue to vigorously defend against the remaining allegations. An adverse outcome could require substantial capital expenditures that cannot be determined at this time or retirement of the remaining plant at issue, Martin Lake. The retirement of the Big Brown plant should have a favorable impact on this litigation.

Zimmer NOV's — In December 2014, the EPA issued a notice of violation (NOV) alleging violation of opacity standards at the Zimmer facility. The EPA previously had issued NOV's to Zimmer in 2008 and 2010 alleging violations of the CAA, the Ohio State Implementation Plan and the station's air permits including standards applicable to opacity, sulfur dioxide, sulfuric acid mist and heat input. The NOV's remain unresolved.

Edwards CAA Citizen Suit — In April 2013, environmental groups filed a CAA citizen suit in the U.S. District Court for the Central District of Illinois alleging violations of opacity and particulate matter limits at our MISO segment's Edwards facility. In August 2016, the district court granted the plaintiffs' motion for summary judgment on certain liability issues. In March 2019, the court denied the parties' motions for summary judgment on remedy issues. A bench trial on the remedy issues is scheduled for the end of September 2019. We dispute the allegations and will defend the case vigorously.

Ultimate resolution of any of these CAA matters could have a material adverse impact on our future financial condition, results of operations, and cash flows. A resolution could result in increased capital expenditures for the installation of pollution control equipment, increased operations and maintenance expenses, and penalties, or could result in an order or a decision to retire these plants. While we cannot predict the outcome of these legal proceedings, or estimate a range of costs, they could have a material impact on our results of operations, liquidity or financial condition.

Coal Combustion Residuals/Groundwater

In July 2018, the EPA published a final rule, which became effective in August 2018, that amends certain provisions of the Coal Combustion Residuals (CCR) rule that the agency issued in 2015. Among other changes, the 2018 revisions extend closure deadlines to October 31, 2020, related to the aquifer location restriction and groundwater monitoring requirements. Also, on August 21, 2018, the D.C. Circuit Court issued a decision that vacates and remands certain provisions of the 2015 CCR rule, including an applicability exemption for legacy impoundments. The EPA is expected to undertake further revisions to its CCR regulations in response to the D.C. Circuit Court's ruling. In October 2018, the rule that extends certain closure deadlines to 2020 was challenged in the D.C. Circuit Court. In March 2019, the D.C. Circuit Court granted the EPA's request for remand without vacatur. The EPA is expected to issue proposed rules on these and other aspects of the CCR rule in the near term. While we cannot predict the impacts of these rule revisions (including whether and if so how the states in which we operate will utilize the authority delegated to the states through the revisions), or estimate a range of reasonably possible costs related to these revisions, the changes that result from these revisions could have a material impact on our results of operations, liquidity or financial condition.

MISO Segment — In 2012, the Illinois Environmental Protection Agency (IEPA) issued violation notices alleging violations of groundwater standards onsite at our Baldwin and Vermilion facilities' CCR surface impoundments. In 2016, the IEPA approved our closure and post-closure care plans for the Baldwin old east, east, and west fly ash CCR surface impoundments. We are working towards implementation of those closure plans.

At our retired Vermilion facility, which was not subject to the EPA's 2015 CCR rule until the aforementioned D.C. Circuit court decision in August 2018, we submitted proposed corrective action plans involving closure of two CCR surface impoundments (*i.e.*, the old east and the north impoundments) to the IEPA in 2012, with revised plans submitted in 2014. In May 2017, in response to a request from the IEPA for additional information regarding the closure of these Vermilion surface impoundments, we agreed to perform additional groundwater sampling and closure options and riverbank stabilizing options. In May 2018, Prairie Rivers Network filed a citizen suit against our subsidiary Dynegy Midwest Generation, LLC (DMG), alleging violations of the Clean Water Act for alleged unauthorized discharges. In August 2018, we filed a motion to dismiss the lawsuit. In November 2018, the district court granted our motion to dismiss and judgment was entered in our favor. Plaintiffs have appealed the judgment to the U.S. Court of Appeals for the Seventh Circuit. That appeal is now stayed. In April 2019, PRN also filed a complaint against DMG before the IPCB, alleging that groundwater flows allegedly associated with the ash impoundments at the Vermilion site have resulted in exceedances both of surface water standards and Illinois groundwater standards dating back to 1992. This matter is in very early stages and we dispute the allegations in the complaint. We dispute the allegations in both of these matters and will vigorously defend our position.

In 2012, the IEPA issued violation notices alleging violations of groundwater standards at the Newton and Coffeen facilities' CCR surface impoundments. We are addressing these CCR surface impoundments in accordance with the federal CCR rule. In June 2018, the IEPA issued a violation notice for alleged seep discharges claimed to be coming from the surface impoundments at our retired Vermilion facility and that notice has since been referred to the Illinois Attorney General.

In December 2018, the Sierra Club filed a complaint with the IPCB alleging the disposal and storage of coal ash at the Coffeen, Edwards and Joppa generation facilities are causing exceedances of the applicable groundwater standards. We dispute the allegations and will vigorously defend our position.

In May 2019, coal ash disposal and storage legislation passed the Illinois legislature and is now awaiting signature by the Illinois Governor. The legislation addresses state requirements for the proper closure of coal ash ponds in the state of Illinois. The legislation tasks the IEPA and the IPCB to set up a series of guidelines, rules and permit requirements for closure of ash ponds. Assuming the legislation is signed, we expect the rulemaking process should take about 18 months to complete. Under the legislation, coal ash impoundment owners would be required to submit a closure alternative analysis to the IEPA for the selection of the best method for coal ash remediation at a particular site. The legislation does not mandate closure by removal at any site. With respect to near-term costs, the legislation requires that operators pay a one-time fee of \$50,000 for each closed site and \$75,000 for each open site. This one-time fee is paid six months after the effective date of the legislation. The legislation also requires annual permit fees. While we cannot predict the outcome of these proceedings, or estimate a range of costs, they could have a material impact on our results of operations, liquidity or financial condition.

For all of the above matters, if remediation measures concerning groundwater are necessary at any of our coal-fueled facilities, we may incur significant costs that could have a material adverse effect on our financial condition, results of operations, and cash flows. At this time, in part because of the revisions to the CCR rule that the EPA published in July 2018 and the D.C. Circuit Court's vacatur and remand of certain provisions of the EPA's 2015 CCR rule and the Illinois coal ash legislation, we cannot reasonably estimate the costs, or range of costs, of groundwater remediation, if any, that ultimately may be required. Current CCR surface impoundment and landfill closure costs, as determined by our operations and environmental services teams, are reflected in our AROs.

MISO 2015-2016 Planning Resource Auction

In May 2015, three complaints were filed at FERC regarding the Zone 4 results for the 2015-2016 planning resource auction (PRA) conducted by MISO. Dynegy is a named party in one of the complaints. The complainants, Public Citizen, Inc., the Illinois Attorney General and Southwestern Electric Cooperative, Inc. (Complainants), challenged the results of the PRA as unjust and unreasonable, requested rate relief/refunds, and requested changes to the MISO planning resource auction structure going forward. Complainants also alleged that Dynegy may have engaged in economic or physical withholding in Zone 4 constituting market manipulation in the PRA. The Independent Market Monitor for MISO (MISO IMM), which was responsible for monitoring the PRA, determined that all offers were competitive and that no physical or economic withholding occurred. The MISO IMM also stated, in a filing responding to the complaints, that there is no basis for the remedies sought by the Complainants. We filed our answer to these complaints explaining that we complied fully with the terms of the MISO tariff in connection with the PRA and disputing the allegations. The Illinois Industrial Energy Consumers filed a related complaint at FERC against MISO in June 2015 requesting prospective changes to the MISO tariff. Dynegy also responded to this complaint with respect to Dynegy's conduct alleged in the complaint.

In October 2015, FERC issued an order of nonpublic, formal investigation (the investigation) into whether market manipulation or other potential violations of FERC orders, rules and regulations occurred before or during the PRA.

In December 2015, FERC issued an order on the complaints requiring a number of prospective changes to the MISO tariff provisions effective as of the 2016-2017 planning resource auction. The order did not address the arguments of the Complainants regarding the PRA and stated that those issues remained under consideration and would be addressed in a future order.

In July 2019, FERC issued an order denying the remaining issues raised by the complaints and noted that the investigation into Dynegy was closed. FERC found that Dynegy's conduct did not constitute market manipulation and the results of the PRA were just and reasonable because the PRA was conducted in accordance with MISO's tariff. With the issuance of the order, this matter has been resolved in Dynegy's favor. The order remains subject to rehearing at FERC and appeal.

Other Matters

We are involved in various legal and administrative proceedings in the normal course of business, the ultimate resolutions of which, in the opinion of management, are not anticipated to have a material effect on our results of operations, liquidity or financial condition.

14. EQUITY

Share Repurchase Program

In November 2018, we announced that the Board had authorized an incremental share repurchase program (Program) under which up to \$1.250 billion of our outstanding stock may be purchased. In the three months ended June 30, 2019, 8,558,712 shares of our common stock were repurchased for \$212 million (including related fees and expenses) at an average price of \$24.72 per share of common stock. In the six months ended June 30, 2019, 18,100,329 shares of our common stock were repurchased for \$448 million (including related fees and expenses) at an average price of \$24.75 per share of common stock. On a cumulative basis, 30,173,420 shares of our common stock have been repurchased under the Program for \$726 million (including related fees and expenses) at an average price of \$24.05 per share of common stock. At June 30, 2019, \$524 million was available for additional repurchases under the Program, and we intend to implement the Program opportunistically from time to time in 2019 and 2020.

Shares of the Company's common stock may be repurchased in open market transactions at prevailing market prices, in privately negotiated transactions, pursuant to plans complying with the Exchange Act, or by other means in accordance with federal securities laws. The actual timing, number and value of shares repurchased under the Program will be determined at our discretion and will depend on a number of factors, including the market price of our stock, general market and economic conditions, applicable legal requirements and compliance with the terms of our debt agreements and the Tax Matters Agreement.

Dividends

In November 2018, Vistra Energy announced the Board had adopted a dividend program pursuant to which Vistra Energy would initiate an annual dividend of approximately \$0.50 per share expected to begin in the first quarter of 2019. Each dividend under the program will be subject to the declaration by the Board and, thus, may be subject to numerous factors in existence at the time of any such declaration including, but not limited to, prevailing market conditions, Vistra Energy's results of operations, financial condition and liquidity and Delaware law.

In February 2019 and May 2019, the Board declared quarterly dividends of \$0.125 per share that were paid in March 2019 and June 2019, respectively. In July 2019, the Board declared a quarterly dividend of \$0.125 per share that will be paid in September 2019. Vistra Energy did not declare or pay any dividends during the six months ended June 30, 2018.

Dividend Restrictions

The agreement governing the Credit Facilities Agreement generally restricts the ability of Vistra Operations to make distributions to any direct or indirect parent unless such distributions are expressly permitted thereunder. As of June 30, 2019, Vistra Operations can distribute approximately \$6.3 billion to Parent under the Credit Facilities Agreement without the consent of any party. The amount that can be distributed by Vistra Operations to Parent was partially reduced by distributions made by Vistra Operations to Parent of approximately \$1.645 billion and \$3.195 billion during the three and six months ended June 30, 2019, respectively, and approximately \$4.7 billion and \$1.1 billion during the years ended December 31, 2018 and 2017, respectively. Additionally, Vistra Operations may make distributions to Parent in amounts sufficient for Parent to make any payments required under the TRA or the Tax Matters Agreement or, to the extent arising out of Parent's ownership or operation of Vistra Operations, to pay any taxes or general operating or corporate overhead expenses. As of June 30, 2019, the maximum amount of restricted net assets of Vistra Operations that may not be distributed to Parent totaled approximately \$1.9 billion.

Under applicable Delaware General Corporate Law, we are prohibited from paying any distribution to the extent that such distribution exceeds the value of our "surplus," which is defined as the excess of our net assets above our capital (the aggregate par value of all outstanding shares of our stock).

Warrants

At the Merger Date, the Company entered into an agreement whereby holders of each outstanding warrant previously issued by Dynegy will be entitled to receive, upon exercise, the equity securities to which the holder would have been entitled to receive of Dynegy common stock converted into shares of Vistra Energy common stock at the Exchange Ratio. As of June 30, 2019, nine million warrants expiring in 2024 with an exercise price of \$35.00 (subject to adjustment from time to time) were outstanding, each of which can be redeemed for 0.652 share of Vistra Energy common stock. The warrants are recorded as equity in our condensed consolidated balance sheet.

Tangible Equity Units (TEUs)

At the Merger Date, the Company assumed the obligations of Dynegey's 4,600,000 7.00% TEUs, each with a stated amount of \$100.00 and each comprised of (i) a prepaid stock purchase contract that delivered to the holder, on July 1, 2019, 4.0813 shares of Vistra Energy common stock per contract with cash paid in lieu of any fractional shares at a rate of \$22.5954 per share and (ii) a senior amortizing note with an outstanding principal amount of \$38 million at the Merger Date that paid an equal quarterly cash installment of \$1.75 per amortizing note (see Note 11). In the aggregate, the annual quarterly cash installments were equivalent to a 7.00% cash payment per year with respect to each \$100.00 stated amount of TEUs. The amortizing notes were accounted for as debt while the stock purchase contract was included in equity based on the fair value of the contract at the Merger Date (see Note 11). The entire class of TEUs were suspended from trading on the New York Stock Exchange on July 1, 2019 and removed from listing and registration on July 12, 2019. On July 1, 2019, approximately 18.8 million treasury shares of Vistra Energy common stock were issued in connection with the settlement of the TEUs.

Equity

The following table presents the changes to equity for the three months ended June 30, 2019 :

	Common Stock (a)	Additional Paid-in Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at March 31, 2019	\$ 5	\$ 9,105	\$ (1,285)	\$ (21)	\$ 7,804	\$ 2	\$ 7,806
Treasury stock	—	(212)	—	—	(212)	—	(212)
Dividends declared on common stock	—	—	(59)	—	(59)	—	(59)
Effects of stock-based incentive compensation plans	—	16	—	—	16	—	16
Net income (loss)	—	—	356	—	356	(2)	354
Other	—	—	(1)	—	(1)	—	(1)
Balance at June 30, 2019	\$ 5	\$ 8,909	\$ (989)	\$ (21)	\$ 7,904	\$ —	\$ 7,904

The following table presents the changes to equity for the six months ended June 30, 2019 :

	Common Stock (a)	Additional Paid-in Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2018	\$ 5	\$ 9,329	\$ (1,449)	\$ (22)	\$ 7,863	\$ 4	\$ 7,867
Treasury stock	—	(448)	—	—	(448)	—	(448)
Dividends declared on common stock	—	—	(120)	—	(120)	—	(120)
Effects of stock-based incentive compensation plans	—	28	—	—	28	—	28
Net income (loss)	—	—	581	—	581	(3)	578
Adoption of accounting standard (Note 1)	—	—	(2)	—	(2)	—	(2)
Change in unrecognized losses related to pension and OPEB plans	—	—	—	1	1	—	1
Other	—	—	1	—	1	(1)	—
Balance at June 30, 2019	\$ 5	\$ 8,909	\$ (989)	\$ (21)	\$ 7,904	\$ —	\$ 7,904

(a) Authorized shares totaled 1,800,000,000 at June 30, 2019 . Outstanding shares totaled 476,166,856 and 493,215,309 at June 30, 2019 and December 31, 2018 , respectively.

The following table presents the changes to equity for the three months ended June 30, 2018 :

	Common Stock (a)	Additional Paid-in Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at March 31, 2018	\$ 4	\$ 7,772	\$ (1,700)	\$ (16)	\$ 6,060	\$ —	\$ 6,060
Stock and stock compensation awards issued in connection with the Merger	1	1,891	—	—	1,892	—	1,892
Treasury stock	—	(75)	—	—	(75)	—	(75)
Effects of stock-based incentive compensation plans	—	56	—	—	56	—	56
Tangible equity units acquired	—	369	—	—	369	—	369
Warrants acquired	—	2	—	—	2	—	2
Net income (loss)	—	—	108	—	108	—	108
Investment by noncontrolling interest	—	—	—	—	—	7	7
Other	—	—	1	—	1	—	1
Balance at June 30, 2018	\$ 5	\$ 10,015	\$ (1,591)	\$ (16)	\$ 8,413	\$ 7	\$ 8,420

The following table presents the changes to equity for the six months ended June 30, 2018 :

	Common Stock (a)	Additional Paid-in Capital	Retained Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity	Noncontrolling Interest	Total Equity
Balance at December 31, 2017	\$ 4	\$ 7,765	\$ (1,410)	\$ (17)	\$ 6,342	\$ —	\$ 6,342
Stock and stock compensation awards issued in connection with the Merger	1	1,891	—	—	1,892	—	1,892
Treasury stock	—	(75)	—	—	(75)	—	(75)
Effects of stock-based incentive compensation plans	—	63	—	—	63	—	63
Tangible equity units acquired	—	369	—	—	369	—	369
Warrants acquired	—	2	—	—	2	—	2
Net loss	—	—	(198)	—	(198)	—	(198)
Adoption of accounting standard	—	—	17	—	17	—	17
Change in unrecognized losses related to pension and OPEB plans	—	—	—	1	1	—	1
Investment by noncontrolling interest	—	—	—	—	—	7	7
Balance at June 30, 2018	\$ 5	\$ 10,015	\$ (1,591)	\$ (16)	\$ 8,413	\$ 7	\$ 8,420

(a) Authorized shares totaled 1,800,000,000 at June 30, 2018 . Outstanding shares totaled 521,214,879 and 428,398,802 at June 30, 2018 and December 31, 2017 , respectively.

15. FAIR VALUE MEASUREMENTS

We utilize several different valuation techniques to measure the fair value of assets and liabilities, relying primarily on the market approach of using prices and other market information for identical and/or comparable assets and liabilities for those items that are measured on a recurring basis. We use a mid-market valuation convention (the mid-point price between bid and ask prices) as a practical expedient to measure fair value for the majority of our assets and liabilities and use valuation techniques to maximize the use of observable inputs and minimize the use of unobservable inputs. Our valuation policies and procedures were developed, maintained and validated by a centralized risk management group that reports to the Vistra Energy Chief Financial Officer.

Fair value measurements of derivative assets and liabilities incorporate an adjustment for credit-related nonperformance risk. These nonperformance risk adjustments take into consideration master netting arrangements, credit enhancements and the credit risks associated with our credit standing and the credit standing of our counterparties (see Note 16 for additional information regarding credit risk associated with our derivatives). We utilize credit ratings and default rate factors in calculating these fair value measurement adjustments.

We categorize our assets and liabilities recorded at fair value based upon the following fair value hierarchy:

- Level 1 valuations use quoted prices in active markets for identical assets or liabilities that are accessible at the measurement date. Our Level 1 assets and liabilities include CME or ICE (electronic commodity derivative exchanges) futures and options transacted through clearing brokers for which prices are actively quoted. We report the fair value of CME and ICE transactions without taking into consideration margin deposits, with the exception of certain margin amounts related to changes in fair value on certain CME transactions that, beginning in January 2017, are legally characterized as settlement of derivative contracts rather than collateral.
- Level 2 valuations utilize over-the-counter broker quotes, quoted prices for similar assets or liabilities that are corroborated by correlations or other mathematical means, and other valuation inputs such as interest rates and yield curves observable at commonly quoted intervals. We attempt to obtain multiple quotes from brokers that are active in the markets in which we participate and require at least one quote from two brokers to determine a pricing input as observable. The number of broker quotes received for certain pricing inputs varies depending on the depth of the trading market, each individual broker's publication policy, recent trading volume trends and various other factors.
- Level 3 valuations use unobservable inputs for the asset or liability. Unobservable inputs are used to the extent observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. We use the most meaningful information available from the market combined with internally developed valuation methodologies to develop our best estimate of fair value. Significant unobservable inputs used to develop the valuation models include volatility curves, correlation curves, illiquid pricing delivery periods and locations and credit-related nonperformance risk assumptions. These inputs and valuation models are developed and maintained by employees trained and experienced in market operations and fair value measurements and validated by the Company's risk management group.

With respect to amounts presented in the following fair value hierarchy tables, the fair value measurement of an asset or liability (e.g., a contract) is required to fall in its entirety in one level, based on the lowest level input that is significant to the fair value measurement.

Assets and liabilities measured at fair value on a recurring basis consisted of the following at the respective balance sheet dates shown below:

	June 30, 2019				
	Level 1	Level 2	Level 3 (a)	Reclassification (b)	Total
Assets:					
Commodity contracts	\$ 958	\$ 300	\$ 214	\$ 70	\$ 1,542
Nuclear decommissioning trust – equity securities (c)	510	—	—	—	510
Nuclear decommissioning trust – debt securities (c)	—	502	—	—	502
Sub-total	<u>\$ 1,468</u>	<u>\$ 802</u>	<u>\$ 214</u>	<u>\$ 70</u>	<u>2,554</u>
Assets measured at net asset value (d):					
Nuclear decommissioning trust – equity securities (c)					330
Total assets					<u>\$ 2,884</u>
Liabilities:					
Commodity contracts	\$ 1,063	\$ 419	\$ 210	\$ 70	\$ 1,762
Interest rate swaps	—	156	—	—	156
Total liabilities	<u>\$ 1,063</u>	<u>\$ 575</u>	<u>\$ 210</u>	<u>\$ 70</u>	<u>\$ 1,918</u>

December 31, 2018

	Level 1	Level 2	Level 3 (a)	Reclassification (b)	Total
Assets:					
Commodity contracts	\$ 456	\$ 152	\$ 153	\$ 1	\$ 762
Interest rate swaps	—	77	—	—	77
Nuclear decommissioning trust – equity securities (c)	449	—	—	—	449
Nuclear decommissioning trust – debt securities (c)	—	443	—	—	443
Sub-total	<u>\$ 905</u>	<u>\$ 672</u>	<u>\$ 153</u>	<u>\$ 1</u>	<u>1,731</u>
Assets measured at net asset value (d):					
Nuclear decommissioning trust – equity securities (c)					278
Total assets					<u>\$ 2,009</u>
Liabilities:					
Commodity contracts	\$ 557	\$ 766	\$ 288	\$ 1	\$ 1,612
Interest rate swaps	—	34	—	—	34
Total liabilities	<u>\$ 557</u>	<u>\$ 800</u>	<u>\$ 288</u>	<u>\$ 1</u>	<u>\$ 1,646</u>

(a) See table below for description of Level 3 assets and liabilities.

(b) Fair values are determined on a contract basis, but certain contracts result in a current asset and a noncurrent liability, or vice versa, as presented in our condensed consolidated balance sheets.

(c) The nuclear decommissioning trust investment is included in the investments line in our condensed consolidated balance sheets. See Note 19.

(d) The fair value amounts presented in this line are intended to permit reconciliation of the fair value hierarchy to the amounts presented in our condensed consolidated balance sheets. Certain investments measured at fair value using the net asset value per share (or its equivalent) have not been classified in the fair value hierarchy.

Commodity contracts consist primarily of natural gas, electricity, coal and emissions agreements and include financial instruments entered into for economic hedging purposes as well as physical contracts that have not been designated as normal purchases or sales. Interest rate swaps are used to reduce exposure to interest rate changes by converting floating-rate interest to fixed rates. See Note 16 for further discussion regarding derivative instruments.

Nuclear decommissioning trust assets represent securities held for the purpose of funding the future retirement and decommissioning of our nuclear generation facility. These investments include equity, debt and other fixed-income securities consistent with investment rules established by the NRC and the PUCT.

The following tables present the fair value of the Level 3 assets and liabilities by major contract type and the significant unobservable inputs used in the valuations at June 30, 2019 and December 31, 2018 :

June 30, 2019						
Contract Type (a)	Fair Value			Valuation Technique	Significant Unobservable Input	Range (b)
	Assets	Liabilities	Total			
Electricity purchases and sales	\$ 72	\$ (58)	\$ 14	Valuation Model	Hourly price curve shape (c) Illiquid delivery periods for hub power prices and heat rates (d)	\$0 to \$110/ MWh \$20 to \$120/ MWh
Electricity and weather options	10	(102)	(92)	Option Pricing Model	Gas to power correlation (e) Power volatility (e)	10% to 100% 5% to 435%
Financial transmission rights	121	(16)	105	Market Approach (f)	Illiquid price differences between settlement points (g)	\$(5) to \$50/ MWh
Other (h)	11	(34)	(23)			
Total	\$ 214	\$ (210)	\$ 4			

December 31, 2018						
Contract Type (a)	Fair Value			Valuation Technique	Significant Unobservable Input	Range (b)
	Assets	Liabilities	Total			
Electricity purchases and sales	\$ 22	\$ (48)	\$ (26)	Valuation Model	Hourly price curve shape (c) Illiquid delivery periods for ERCOT hub power prices and heat rates (d)	\$0 to \$110/ MWh \$20 to \$120/ MWh
Electricity and weather options	31	(192)	(161)	Option Pricing Model	Gas to power correlation (e) Power volatility (e)	15% to 95% 5% to 435%
Financial transmission rights	85	(20)	65	Market Approach (f)	Illiquid price differences between settlement points (g)	\$(10) to \$50/ MWh
Other (h)	15	(28)	(13)			
Total	\$ 153	\$ (288)	\$ (135)			

(a) Electricity purchase and sales contracts include power and heat rate positions in ERCOT, PJM, NYISO, ISO-NE and MISO regions. The forward purchase contracts (swaps and options) used to hedge electricity price differences between settlement points within are referred to as congestion revenue rights in ERCOT and financial transmission rights in PJM, NYISO, ISO-NE and MISO regions. Electricity options consist of physical electricity options and spread options.

(b) The range of the inputs may be influenced by factors such as time of day, delivery period, season and location.

(c) Primarily based on the historical range of forward average hourly ERCOT North Hub prices.

(d) Primarily based on historical forward ERCOT and PJM power prices and ERCOT heat rate variability.

(e) Based on historical forward correlation and volatility within ERCOT.

(f) While we use the market approach, there is insufficient market data to consider the valuation liquid.

(g) Primarily based on the auction price that reflects the difference in power prices at two locations.

(h) Other includes contracts for natural gas, coal, coal option, power and gas swaption and emissions.

There were no transfers between Level 1 and Level 2 of the fair value hierarchy for the three and six months ended June 30, 2019 and 2018 . See the table below for discussion of transfers between Level 2 and Level 3 for the three and six months ended June 30, 2019 and 2018 .

The following table presents the changes in fair value of the Level 3 assets and liabilities for the three and six months ended June 30, 2019 and 2018 .

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net liability balance at beginning of period	\$ (113)	\$ (224)	\$ (135)	\$ (53)
Total unrealized valuation gains (losses)	87	(18)	125	(230)
Purchases, issuances and settlements (a):				
Purchases	61	29	79	58
Issuances	(10)	(4)	(17)	(7)
Settlements	(20)	29	(42)	45
Transfers into Level 3 (b)	3	2	5	1
Transfers out of Level 3 (b)	(4)	1	(11)	1
Net liabilities assumed in connection with the Merger	—	(37)	—	(37)
Net change (c)	117	2	139	(169)
Net liability balance at end of period	\$ 4	\$ (222)	\$ 4	\$ (222)
Unrealized valuation gains (losses) relating to instruments held at end of period	\$ 92	\$ (17)	\$ 110	\$ (226)

(a) Settlements reflect reversals of unrealized mark-to-market valuations previously recognized in net income. Purchases and issuances reflect option premiums paid or received.

(b) Includes transfers due to changes in the observability of significant inputs. All Level 3 transfers during the periods presented are in and out of Level 2. For six months ended June 30, 2019 , transfers out of Level 3 primarily consists of coal derivatives where forward pricing inputs have become observable.

(c) Activity excludes change in fair value in the month positions settle. Substantially all changes in values of commodity contracts (excluding the net liabilities assumed in connection with the Merger) are reported as operating revenues in our condensed statements of consolidated income (loss).

16. COMMODITY AND OTHER DERIVATIVE CONTRACTUAL ASSETS AND LIABILITIES

Strategic Use of Derivatives

We transact in derivative instruments, such as options, swaps, futures and forward contracts, to manage commodity price and interest rate risk. See Note 15 for a discussion of the fair value of derivatives.

Commodity Hedging and Trading Activity — We utilize natural gas and electricity derivatives to reduce exposure to changes in electricity prices primarily to hedge future revenues from electricity sales from our generation assets. We also utilize short-term electricity, natural gas, coal, and emissions derivative instruments for fuel hedging and other purposes. Counterparties to these transactions include energy companies, financial institutions, electric utilities, independent power producers, oil and gas producers, local distribution companies and energy marketing companies. Unrealized gains and losses arising from changes in the fair value of derivative instruments as well as realized gains and losses upon settlement of the instruments are reported in our condensed statements of consolidated income (loss) in operating revenues and fuel, purchased power costs and delivery fees.

Interest Rate Swaps — Interest rate swap agreements are used to reduce exposure to interest rate changes by converting floating-rate interest rates to fixed rates, thereby hedging future interest costs and related cash flows. Unrealized gains and losses arising from changes in the fair value of the swaps as well as realized gains and losses upon settlement of the swaps are reported in our condensed statements of consolidated income (loss) in interest expense and related charges.

Financial Statement Effects of Derivatives

Substantially all derivative contractual assets and liabilities are accounted for under mark-to-market accounting consistent with accounting standards related to derivative instruments and hedging activities. The following tables provide detail of derivative contractual assets and liabilities as reported in our condensed consolidated balance sheets at June 30, 2019 and December 31, 2018. Derivative asset and liability totals represent the net value of the contract, while the balance sheet totals represent the gross value of the contract.

	June 30, 2019				
	Derivative Assets		Derivative Liabilities		Total
	Commodity Contracts	Interest Rate Swaps	Commodity Contracts	Interest Rate Swaps	
Current assets	\$ 1,403	\$ —	\$ 15	\$ —	\$ 1,418
Noncurrent assets	114	—	10	—	124
Current liabilities	—	—	(1,508)	(6)	(1,514)
Noncurrent liabilities	(45)	—	(209)	(150)	(404)
Net assets (liabilities)	\$ 1,472	\$ —	\$ (1,692)	\$ (156)	\$ (376)

	December 31, 2018				
	Derivative Assets		Derivative Liabilities		Total
	Commodity Contracts	Interest Rate Swaps	Commodity Contracts	Interest Rate Swaps	
Current assets	\$ 707	\$ 22	\$ 1	\$ —	\$ 730
Noncurrent assets	54	55	—	—	109
Current liabilities	—	—	(1,374)	(2)	(1,376)
Noncurrent liabilities	—	—	(238)	(32)	(270)
Net assets (liabilities)	\$ 761	\$ 77	\$ (1,611)	\$ (34)	\$ (807)

At June 30, 2019 and December 31, 2018, there were no derivative positions accounted for as cash flow or fair value hedges.

The following table presents the pretax effect of derivative gains (losses) on net income, including realized and unrealized effects. Amount represents changes in fair value of positions in the derivative portfolio during the period, as realized amounts related to positions settled are assumed to equal reversals of previously recorded unrealized amounts.

Derivative (condensed statements of consolidated income (loss) presentation)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Commodity contracts (Operating revenues)	\$ 549	\$ 69	\$ 776	\$ (376)
Commodity contracts (Fuel, purchased power costs and delivery fees)	(24)	13	3	12
Interest rate swaps (Interest expense and related charges)	(108)	22	(183)	78
Net gain (loss)	\$ 417	\$ 104	\$ 596	\$ (286)

Balance Sheet Presentation of Derivatives

We elect to report derivative assets and liabilities in our condensed consolidated balance sheets on a gross basis without taking into consideration netting arrangements we have with counterparties to those derivatives. We maintain standardized master netting agreements with certain counterparties that allow for the right to offset assets and liabilities and collateral in order to reduce credit exposure between us and the counterparty. These agreements contain specific language related to margin requirements, monthly settlement netting, cross-commodity netting and early termination netting, which is negotiated with the contract counterparty.

Generally, margin deposits that contractually offset these derivative instruments are reported separately in our condensed consolidated balance sheets, with the exception of certain margin amounts related to changes in fair value on CME transactions that are legally characterized as settlement of forward exposure rather than collateral. Margin deposits received from counterparties are primarily used for working capital or other general corporate purposes.

The following tables reconcile our derivative assets and liabilities on a contract basis to net amounts after taking into consideration netting arrangements with counterparties and financial collateral:

	June 30, 2019				December 31, 2018			
	Derivative Assets and Liabilities	Offsetting Instruments (a)	Cash Collateral (Received) Pledged (b)	Net Amounts	Derivative Assets and Liabilities	Offsetting Instruments (a)	Cash Collateral (Received) Pledged (b)	Net Amounts
Derivative assets:								
Commodity contracts	\$ 1,472	\$ (1,199)	\$ (6)	\$ 267	\$ 761	\$ (593)	\$ (1)	\$ 167
Interest rate swaps	—	—	—	—	77	(26)	—	51
Total derivative assets	1,472	(1,199)	(6)	267	838	(619)	(1)	218
Derivative liabilities:								
Commodity contracts	(1,692)	1,199	118	(375)	(1,611)	593	109	(909)
Interest rate swaps	(156)	—	—	(156)	(34)	26	—	(8)
Total derivative liabilities	(1,848)	1,199	118	(531)	(1,645)	619	109	(917)
Net amounts	\$ (376)	\$ —	\$ 112	\$ (264)	\$ (807)	\$ —	\$ 108	\$ (699)

(a) Amounts presented exclude trade accounts receivable and payable related to settled financial instruments.

(b) Represents cash amounts received or pledged pursuant to a master netting arrangement, including fair value-based margin requirements.

Derivative Volumes

The following table presents the gross notional amounts of derivative volumes at June 30, 2019 and December 31, 2018 :

Derivative type	June 30, 2019	December 31, 2018	Unit of Measure
	Notional Volume		
Natural gas (a)	6,867	7,011	Million MMBtu
Electricity	394,990	317,572	GWh
Financial Transmission Rights (b)	234,664	172,611	GWh
Coal	35	45	Million U.S. tons
Fuel oil	73	60	Million gallons
Uranium	125	50	Thousand pounds
Emissions	16	10	Million tons
Interest rate swaps – floating/fixed (c)	\$ 6,720	\$ 7,717	Million U.S. dollars

(a) Represents gross notional forward sales, purchases and options transactions, locational basis swaps and other natural gas transactions.

(b) Represents gross forward purchases associated with instruments used to hedge electricity price differences between settlement points within ISOs or RTOs.

(c) Includes notional amounts of interest rate swaps with maturity dates through July 2026. See Note 11 for termination of interest rate swaps.

Credit Risk-Related Contingent Features of Derivatives

Our derivative contracts may contain certain credit risk-related contingent features that could trigger liquidity requirements in the form of cash collateral, letters of credit or some other form of credit enhancement. Certain of these agreements require the posting of collateral if our credit rating is downgraded by one or more credit rating agencies or include cross-default contractual provisions that could result in the settlement of such contracts if there was a failure under other financing arrangements related to payment terms or other covenants.

The following table presents the commodity derivative liabilities subject to credit risk-related contingent features that are not fully collateralized:

	June 30, 2019	December 31, 2018
Fair value of derivative contract liabilities (a)	\$ (631)	\$ (856)
Offsetting fair value under netting arrangements (b)	223	218
Cash collateral and letters of credit	79	190
Liquidity exposure	\$ (329)	\$ (448)

(a) Excludes fair value of contracts that contain contingent features that do not provide specific amounts to be posted if features are triggered, including provisions that generally provide the right to request additional collateral (material adverse change, performance assurance and other clauses).

(b) Amounts include the offsetting fair value of in-the-money derivative contracts and net accounts receivable under master netting arrangements.

Concentrations of Credit Risk Related to Derivatives

We have concentrations of credit risk with the counterparties to our derivative contracts. At June 30, 2019, total credit risk exposure to all counterparties related to derivative contracts totaled \$1,675 million (including associated accounts receivable). The net exposure to those counterparties totaled \$398 million at June 30, 2019, after taking into effect netting arrangements, setoff provisions and collateral, with the largest net exposure to a single counterparty totaling \$119 million. At June 30, 2019, the credit risk exposure to the banking and financial sector represented 71% of the total credit risk exposure and 23% of the net exposure.

Exposure to banking and financial sector counterparties is considered to be within an acceptable level of risk tolerance because all of this exposure is with counterparties with investment grade credit ratings. However, this concentration increases the risk that a default by any of these counterparties would have a material effect on our financial condition, results of operations and liquidity. The transactions with these counterparties contain certain provisions that would require the counterparties to post collateral in the event of a material downgrade in their credit rating.

We maintain credit risk policies with regard to our counterparties to minimize overall credit risk. These policies authorize specific risk mitigation tools including, but not limited to, use of standardized master agreements that allow for netting of positive and negative exposures associated with a single counterparty. Credit enhancements such as parent guarantees, letters of credit, surety bonds, liens on assets and margin deposits are also utilized. Prospective material changes in the payment history or financial condition of a counterparty or downgrade of its credit quality result in the reassessment of the credit limit with that counterparty. The process can result in the subsequent reduction of the credit limit or a request for additional financial assurances. An event of default by one or more counterparties could subsequently result in termination-related settlement payments that reduce available liquidity if amounts are owed to the counterparties related to the derivative contracts or delays in receipts of expected settlements if the counterparties owe amounts to us.

17. RELATED PARTY TRANSACTIONS

In connection with Emergence, we entered into agreements with certain of our affiliates and with parties who received shares of common stock and TRA Rights in exchange for their claims.

Registration Rights Agreement

Pursuant to the Plan of Reorganization, on the Effective Date, we entered into a Registration Rights Agreement (the Registration Rights Agreement) with certain selling stockholders providing for registration of the resale of the Vistra Energy common stock held by such selling stockholders.

In December 2016, we filed a Form S-1 registration statement with the SEC to register for resale the shares of Vistra Energy common stock held by certain significant stockholders pursuant to the Registration Rights Agreement, which was declared effective by the SEC in May 2017. The registration statement was amended in March 2018. Pursuant to the Registration Rights Agreement, in June 2018, we filed a post-effective amendment to the Form S-1 registration statement on Form S-3, which was declared effective by the SEC in July 2018. Among other things, under the terms of the Registration Rights Agreement:

- if we propose to file certain types of registration statements under the Securities Act with respect to an offering of equity securities, we will be required to use our reasonable best efforts to offer the other parties to the Registration Rights Agreement the opportunity to register all or part of their shares on the terms and conditions set forth in the Registration Rights Agreement; and
- the selling stockholders received the right, subject to certain conditions and exceptions, to request that we file registration statements or amend or supplement registration statements, with the SEC for an underwritten offering of all or part of their respective shares of Vistra Energy common stock (a Demand Registration), and the Company is required to cause any such registration statement or amendment or supplement (a) to be filed with the SEC promptly and, in any event, on or before the date that is 45 days, in the case of a registration statement on Form S-1, or 30 days, in the case of a registration statement on Form S-3, after we receive the written request from the relevant selling stockholders to effectuate the Demand Registration and (b) to become effective as promptly as reasonably practicable and in any event no later than 120 days after it is initially filed.

All expenses of registration under the Registration Rights Agreement, including the legal fees of one counsel retained by or on behalf of the selling stockholders, will be paid by us. Legal fee expenses paid or accrued by Vistra Energy on behalf of the selling stockholders totaled less than \$1 million during both the three and six months ended June 30, 2019 and 2018.

Tax Receivable Agreement

On the Effective Date, Vistra Energy entered into the TRA with a transfer agent on behalf of certain former first lien creditors of TCEH. See Note 8 for discussion of the TRA.

18. SEGMENT INFORMATION

The operations of Vistra Energy are aligned into six reportable business segments: (i) Retail, (ii) ERCOT, (iii) PJM, (iv) NY/NE, (v) MISO and (vi) Asset Closure. Our chief operating decision maker reviews the results of these segments separately and allocates resources to the respective segments as part of our strategic operations.

The Retail segment is engaged in retail sales of electricity and related services to residential, commercial and industrial customers. Substantially all of these activities are conducted by TXU Energy and Value Based Brands in Texas, Dynegy Energy Services in Massachusetts, Ohio, Illinois and Pennsylvania and Homefield Energy in Illinois.

The ERCOT, PJM, NY/NE (comprising NYISO and ISO-NE) and MISO segments are engaged in electricity generation, wholesale energy sales and purchases, commodity risk management activities, fuel production and fuel logistics management, all largely within their respective RTO/ISO market. The PJM, NY/NE and MISO segments were established on the Merger Date to reflect markets served by businesses acquired in the Merger.

The Asset Closure segment is engaged in the decommissioning and reclamation of retired plants and mines. Separately reporting the Asset Closure segment provides management with better information related to the performance and earnings power of Vistra Energy's ongoing operations and facilitates management's focus on minimizing the cost associated with decommissioning and reclamation of retired plants and mines. We have not allocated any unrealized gains or losses on commodity risk management activities to the Asset Closure segment for the generation plants that were retired in January, February and May 2018.

Corporate and Other represents the remaining non-segment operations consisting primarily of (i) general corporate expenses, interest, taxes and other expenses related to our support functions that provide shared services to our operating segments and (ii) CAISO operations.

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Except as noted in Note 1, the accounting policies of the business segments are the same as those described in the summary of significant accounting policies in Note 1. Our chief operating decision maker uses more than one measure to assess segment performance, including segment net income (loss), which is the measure most comparable to consolidated net income (loss) prepared based on U.S. GAAP. We account for intersegment sales and transfers as if the sales or transfers were to third parties, that is, at market prices. Certain shared services costs are allocated to the segments.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Operating revenues (a)				
Retail	\$ 1,421	\$ 1,454	\$ 2,806	\$ 2,426
ERCOT	1,671	1,327	2,625	794
PJM	686	485	1,391	485
NY/NE	254	187	599	187
MISO	246	257	500	257
Asset Closure	—	21	—	49
Corporate and Other (b)	47	31	164	31
Eliminations	(1,493)	(1,188)	(2,330)	(891)
Consolidated operating revenues	\$ 2,832	\$ 2,574	\$ 5,755	\$ 3,338
Depreciation and amortization				
Retail	\$ (59)	\$ (80)	\$ (118)	\$ (157)
ERCOT	(128)	(108)	(259)	(173)
PJM	(134)	(125)	(265)	(125)
NY/NE	(39)	(49)	(104)	(49)
MISO	(3)	(3)	(7)	(3)
Asset Closure	—	—	—	—
Corporate and Other (b)	(21)	(23)	(37)	(35)
Eliminations	—	(1)	—	—
Consolidated depreciation and amortization	\$ (384)	\$ (389)	\$ (790)	\$ (542)
Operating income (loss)				
Retail (c)	\$ (581)	\$ (303)	\$ (563)	\$ 455
ERCOT	1,047	680	1,335	(409)
PJM	185	24	348	24
NY/NE	78	(7)	94	(7)
MISO	35	31	46	31
Asset Closure	(16)	1	(30)	(22)
Corporate and Other (b)	(19)	(196)	(12)	(237)
Eliminations	—	1	—	1
Consolidated operating income (loss)	\$ 729	\$ 231	\$ 1,218	\$ (164)
Net income (loss)				
Retail (c)	\$ (585)	\$ (288)	\$ (571)	\$ 483
ERCOT	1,056	679	1,356	(407)
PJM	183	23	346	23
NY/NE	79	(5)	100	(5)
MISO	35	31	46	31
Asset Closure	(15)	2	(29)	(20)
Corporate and Other (b)	(399)	(337)	(670)	(306)
Consolidated net income (loss)	\$ 354	\$ 105	\$ 578	\$ (201)

(a) The following unrealized net gains (losses) from mark-to-market valuations of commodity positions are included in operating revenues:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Retail	\$ 6	\$ 1	\$ 5	\$ 13
ERCOT	1,050	668	1,287	(398)
PJM	184	(10)	276	(10)
NY/NE	31	(24)	32	(24)
MISO	67	30	46	30
Corporate and Other (b)	3	1	19	1
Eliminations (1)	(803)	(463)	(968)	180
Consolidated unrealized net gains (losses) from mark-to-market valuations of commodity positions included in operating revenues	\$ 538	\$ 203	\$ 697	\$ (208)

(1) Amounts offset in fuel, purchased power costs and delivery fees in the Retail segment, with no impact to consolidated results.

(b) Other includes CAISO operations. Income tax expense is not reflected in net income of the segments but is reflected entirely in Corporate and Other net income.

(c) For the three and six months ended June 30, 2019, Retail operating loss and net loss is driven by unrealized losses from mark-to-market valuations of commodity positions included in fuel, purchased power costs and delivery fees. For the six months ended June 30, 2018, Retail operating income and net income is driven by unrealized gains from mark-to-market valuations of commodity positions included in fuel, purchased power costs and delivery fees.

	June 30, 2019	December 31, 2018
Total assets		
Retail	\$ 8,249	\$ 7,699
ERCOT	10,252	9,347
PJM	5,778	7,188
NY/NE	2,798	2,722
MISO	468	836
Asset Closure	253	254
Corporate and Other and Eliminations	(1,278)	(2,022)
Consolidated total assets	\$ 26,520	\$ 26,024

19. SUPPLEMENTARY FINANCIAL INFORMATION

Pension and OPEB Plans — Components of Net Benefit Cost

For the three and six months ended June 30, 2019 and 2018, net periodic benefit costs consisted of the following:

	Pension Benefits				OPEB Benefits			
	Three Months Ended June 30,		Six Months Ended June 30,		Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018	2019	2018	2019	2018
Service cost	\$ 2	\$ 4	\$ 4	\$ 5	\$ —	\$ 1	\$ —	\$ 1
Other costs	—	—	—	—	2	1	4	2
Net periodic benefit cost	\$ 2	\$ 4	\$ 4	\$ 5	\$ 2	\$ 2	\$ 4	\$ 3

Interest Expense and Related Charges

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Interest paid/accrued	\$ 154	\$ 166	\$ 305	\$ 216
Unrealized mark-to-market net (gains) losses on interest rate swaps	119	(25)	199	(86)
Amortization of debt issuance costs, discounts and premiums	—	3	(2)	4
Debt extinguishment gain	(3)	—	(10)	—
Capitalized interest	(3)	(4)	(7)	(7)
Other	7	6	10	10
Total interest expense and related charges	\$ 274	\$ 146	\$ 495	\$ 137

The weighted average interest rate applicable to the Vistra Operations Credit Facilities, taking into account the interest rate swaps discussed in Note 11, was 4.03% at June 30, 2019.

Other Income and Deductions

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Other income:				
Office space sublease rental income (a)	\$ —	\$ 2	\$ —	\$ 4
Insurance settlement (b)	8	—	19	—
Funds released from escrow to settle pre-petition claims of our predecessor	—	—	9	—
Sale of land (b)	—	—	—	1
Interest income	3	4	7	10
All other	2	1	4	3
Total other income	\$ 13	\$ 7	\$ 39	\$ 18
Other deductions:				
All other	2	1	5	3
Total other deductions	\$ 2	\$ 1	\$ 5	\$ 3

- (a) Reported in Corporate and Other non-segment. Beginning January 1, 2019, our sublease rental income related to real estate leases is reported in selling, general and administrative expenses in the condensed statements of consolidated income (loss).
- (b) Reported in ERCOT segment.

Restricted Cash

	June 30,	December 31, 2018
	2019	
	Current Assets	
Amounts related to restructuring escrow accounts	\$ 42	\$ 57
Total restricted cash	\$ 42	\$ 57

Trade Accounts Receivable

	June 30, 2019	December 31, 2018
Wholesale and retail trade accounts receivable	\$ 1,118	\$ 1,106
Allowance for uncollectible accounts	(17)	(19)
Trade accounts receivable — net	<u>\$ 1,101</u>	<u>\$ 1,087</u>

Gross trade accounts receivable at June 30, 2019 and December 31, 2018 included unbilled retail revenues of \$375 million and \$350 million , respectively.

Allowance for Uncollectible Accounts Receivable

	Six Months Ended June 30,	
	2019	2018
Allowance for uncollectible accounts receivable at beginning of period	\$ 19	\$ 14
Increase for bad debt expense	29	22
Decrease for account write-offs	(31)	(22)
Allowance for uncollectible accounts receivable at end of period	<u>\$ 17</u>	<u>\$ 14</u>

Inventories by Major Category

	June 30, 2019	December 31, 2018
Materials and supplies	\$ 290	\$ 286
Fuel stock	172	115
Natural gas in storage	14	11
Total inventories	<u>\$ 476</u>	<u>\$ 412</u>

Investments

	June 30, 2019	December 31, 2018
Nuclear plant decommissioning trust	\$ 1,342	\$ 1,170
Assets related to employee benefit plans	31	31
Land	49	49
Total investments	<u>\$ 1,422</u>	<u>\$ 1,250</u>

Investment in Unconsolidated Subsidiaries

On the Merger Date, we assumed Dynegy's 50% interest in Northeast Energy, LP (NELP), a joint venture with NextEra Energy, Inc., which indirectly owns the Bellingham NEA facility and the Sayreville facility. At June 30, 2019 , our investment in NELP totaled \$125 million . Our risk of loss related to our equity method investment is limited to our investment balance.

Equity earnings related to our investment in NELP totaled \$3 million and \$4 million for the three months ended June 30, 2019 and 2018 , respectively, and \$9 million and \$4 million for the six months ended June 30, 2019 and 2018 , respectively, recorded in equity in earnings (loss) of unconsolidated investment in our condensed statements of consolidated net income (loss). We received distributions totaling \$9 million and \$6 million for the three months ended June 30, 2019 and 2018 , respectively, and \$14 million and \$6 million for the six months ended June 30, 2019 and 2018 , respectively.

Nuclear Decommissioning Trust

Investments in a trust that will be used to fund the costs to decommission the Comanche Peak nuclear generation plant are carried at fair value. Decommissioning costs are being recovered from Oncor Electric Delivery Company LLC's (Oncor) customers as a delivery fee surcharge over the life of the plant and deposited by Vistra Energy (and prior to the Effective Date, a subsidiary of TCEH) in the trust fund. Income and expense associated with the trust fund and the decommissioning liability are offset by a corresponding change in a regulatory asset/liability (currently a regulatory liability reported in other noncurrent liabilities and deferred credits) that will ultimately be settled through changes in Oncor's delivery fees rates. If funds recovered from Oncor's customers held in the trust fund are determined to be inadequate to decommission the Comanche Peak nuclear generation plant, Oncor would be required to collect all additional amounts from its customers, with no obligation from Vistra Energy, provided that Vistra Energy complied with PUCT rules and regulations regarding decommissioning trusts. A summary of investments in the fund follows:

	June 30, 2019			
	Cost (a)	Unrealized gain	Unrealized loss	Fair market value
Debt securities (b)	\$ 481	\$ 21	\$ —	\$ 502
Equity securities (c)	272	568	—	840
Total	<u>\$ 753</u>	<u>\$ 589</u>	<u>\$ —</u>	<u>\$ 1,342</u>

	December 31, 2018			
	Cost (a)	Unrealized gain	Unrealized loss	Fair market value
Debt securities (b)	\$ 444	\$ 7	\$ (8)	\$ 443
Equity securities (c)	280	448	(1)	727
Total	<u>\$ 724</u>	<u>\$ 455</u>	<u>\$ (9)</u>	<u>\$ 1,170</u>

(a) Includes realized gains and losses on securities sold.

(b) The investment objective for debt securities is to invest in a diversified tax efficient portfolio with an overall portfolio rating of AA or above as graded by S&P or Aa2 by Moody's. The debt securities are heavily weighted with government and municipal bonds and investment grade corporate bonds. The debt securities had an average coupon rate of 3.44% and 3.69% at June 30, 2019 and December 31, 2018, respectively, and an average maturity of nine years and eight years at June 30, 2019 and December 31, 2018, respectively.

(c) The investment objective for equity securities is to invest tax efficiently and to match the performance of the S&P 500 Index for U.S. equity investments and the MSCI EAFE Index for non-U.S. equity investments.

Debt securities held at June 30, 2019 mature as follows: \$186 million in one to five years, \$134 million in five to 10 years and \$182 million after 10 years.

The following table summarizes proceeds from sales of available-for-sale securities and the related realized gains and losses from such sales.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Realized gains	\$ 7	\$ 1	\$ 10	\$ 1
Realized losses	\$ (2)	\$ (1)	\$ (3)	\$ (3)
Proceeds from sales of securities	\$ 214	\$ 47	\$ 292	\$ 93
Investments in securities	\$ (219)	\$ (52)	\$ (302)	\$ (103)

Property, Plant and Equipment

	June 30, 2019	December 31, 2018
Power generation and structures	\$ 15,066	\$ 14,604
Land	640	642
Office and other equipment	163	182
Total	15,869	15,428
Less accumulated depreciation	(1,923)	(1,284)
Net of accumulated depreciation	13,946	14,144
Nuclear fuel (net of accumulated amortization of \$163 million and \$189 million)	179	191
Construction work in progress	135	277
Property, plant and equipment — net	<u>\$ 14,260</u>	<u>\$ 14,612</u>

Depreciation expenses totaled \$312 million and \$292 million for the three months ended June 30, 2019 and 2018, respectively, and \$647 million and \$360 million for six months ended June 30, 2019 and 2018, respectively.

Asset Retirement and Mining Reclamation Obligations (ARO)

These liabilities primarily relate to nuclear generation plant decommissioning, land reclamation related to lignite mining, removal of coal/lignite fueled plant ash treatment facilities and generation plant asbestos removal and disposal costs. There is no earnings impact with respect to changes in the nuclear plant decommissioning liability, as all costs are recoverable through the regulatory process as part of delivery fees charged by Oncor.

At June 30, 2019, the carrying value of our ARO related to our nuclear generation plant decommissioning totaled \$1.298 billion, which is lower than the fair value of the assets contained in the nuclear decommissioning trust. Since the costs to ultimately decommission that plant are recoverable through the regulatory rate making process as part of Oncor's delivery fees, a corresponding regulatory liability has been recorded to our condensed consolidated balance sheet of \$44 million in other noncurrent liabilities and deferred credits.

The following tables summarize the changes to these obligations, reported as asset retirement obligations (current and noncurrent liabilities) in our condensed consolidated balance sheets, for the six months ended June 30, 2019 and 2018.

	Nuclear Plant Decommissioning	Mining Land Reclamation	Coal Ash and Other	Total
Liability at December 31, 2018	\$ 1,276	\$ 442	\$ 655	\$ 2,373
Additions:				
Accretion	22	11	16	49
Adjustment for change in estimates	—	(3)	(3)	(6)
Adjustment for obligations assumed through acquisitions	—	—	(3)	(3)
Reductions:				
Payments	—	(32)	(16)	(48)
Liability at June 30, 2019	1,298	418	649	2,365
Less amounts due currently	—	(132)	(100)	(232)
Noncurrent liability at June 30, 2019	<u>\$ 1,298</u>	<u>\$ 286</u>	<u>\$ 549</u>	<u>\$ 2,133</u>

	Nuclear Plant Decommissioning	Mining Land Reclamation	Coal Ash and Other	Total
Liability at December 31, 2017	\$ 1,233	\$ 438	\$ 265	\$ 1,936
Additions:				
Accretion	21	11	12	44
Adjustment for change in estimates	—	7	(43)	(36)
Obligations assumed in the Merger	—	2	417	419
Reductions:				
Payments	—	(35)	(6)	(41)
Liability at June 30, 2018	<u>\$ 1,254</u>	<u>\$ 423</u>	<u>\$ 645</u>	<u>\$ 2,322</u>

Other Noncurrent Liabilities and Deferred Credits

The balance of other noncurrent liabilities and deferred credits consists of the following:

	June 30, 2019	December 31, 2018
Retirement and other employee benefits	\$ 273	\$ 270
Finance lease liabilities	74	—
Uncertain tax positions, including accrued interest	6	4
Other	111	66
Total other noncurrent liabilities and deferred credits	<u>\$ 464</u>	<u>\$ 340</u>

Fair Value of Debt

	Fair Value Hierarchy	June 30, 2019		December 31, 2018	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term debt (see Note 11):					
Long-term debt under the Vistra Operations Credit Facilities	Level 2	\$ 3,808	\$ 3,796	\$ 5,820	\$ 5,599
Vistra Operations Senior Notes	Level 2	5,535	5,787	987	963
Vistra Energy Senior Notes	Level 2	1,603	1,592	3,819	3,765
7.000% Amortizing Notes	Level 2	8	8	23	24
Forward Capacity Agreements	Level 3	212	212	221	221
Equipment Financing Agreements	Level 3	98	98	102	102
Mandatorily redeemable subsidiary preferred stock	Level 2	70	70	70	70
Building Financing	Level 2	20	19	23	21

We determine fair value in accordance with accounting standards as discussed in Note 15. We obtain security pricing from an independent party who uses broker quotes and third-party pricing services to determine fair values. Where relevant, these prices are validated through subscription services, such as Bloomberg.

Supplemental Cash Flow Information

The following table reconciles cash, cash equivalents and restricted cash reported in our condensed statements of consolidated cash flows to the amounts reported in our condensed balance sheets at June 30, 2019 and December 31, 2018:

	June 30, 2019	December 31, 2018
Cash and cash equivalents	\$ 964	\$ 636
Restricted cash included in current assets	42	57
Total cash, cash equivalents and restricted cash	<u>\$ 1,006</u>	<u>\$ 693</u>

The following table summarizes our supplemental cash flow information for the six months ended June 30, 2019 and 2018 :

	Six Months Ended June 30,	
	2019	2018
Cash payments related to:		
Interest paid	\$ 307	\$ 344
Capitalized interest	(7)	(7)
Interest paid (net of capitalized interest)	\$ 300	\$ 337
Income taxes (a)	\$ 9	\$ 58
Noncash investing and financing activities:		
Construction expenditures (b)	\$ 41	\$ 13
Vistra Energy common stock issued in the Merger (Notes 2 and 14)	\$ —	\$ 2,245

(a) Income tax payments are net of tax refunds of \$21 million and \$5 million in the six months ended June 30, 2019 and 2018 , respectively

(b) Represents end-of-period accruals for ongoing construction projects.

20. SUPPLEMENTAL CONDENSED CONSOLIDATING FINANCIAL INFORMATION

Our senior unsecured notes are guaranteed by substantially all of our wholly owned subsidiaries. The following condensed consolidating financial statements present the financial information of (i) Vistra Energy Corp. (Parent), which is the ultimate parent company and issuer of the senior notes with effect as of the Merger Date, on a stand-alone, unconsolidated basis, (ii) the guarantor subsidiaries of Vistra Energy (Guarantor Subsidiaries), (iii) the non-guarantor subsidiaries of Vistra Energy (Non-Guarantor Subsidiaries) and (iv) the eliminations necessary to arrive at the information for Vistra Energy on a consolidated basis. The Guarantor Subsidiaries consist of the wholly-owned subsidiaries, which jointly, severally, fully and unconditionally, guarantee the payment obligations under the senior notes. See Note 11 for discussion of the senior notes.

These statements should be read in conjunction with the unaudited condensed consolidated financial statements and notes thereto of Vistra Energy. The supplemental condensed consolidating financial information has been prepared pursuant to the rules and regulations for condensed financial information and does not include all disclosures included in annual financial statements. The inclusion of Vistra Energy's subsidiaries as either Guarantor Subsidiaries or Non-Guarantor Subsidiaries in the condensed consolidating financial information is determined as of the most recent balance sheet date presented.

The Parent files a consolidated U.S. federal income tax return. All consolidated income tax expense or benefits and deferred tax assets and liabilities have been allocated to the respective subsidiary columns in accordance with the accounting rules that apply to separate financial statements of subsidiaries.

Vistra Energy Corp. (Parent) received \$3.195 billion in dividends from its consolidated subsidiaries in the six months ended June 30, 2019 .

Condensed Statements of Consolidating Income (Loss) for the Three Months Ended June 30, 2019 (Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Operating revenues	\$ —	\$ 2,835	\$ 53	\$ (56)	\$ 2,832
Fuel, purchased power costs and delivery fees	—	(1,144)	(19)	24	(1,139)
Operating costs	—	(355)	(15)	—	(370)
Depreciation and amortization	(1)	(364)	(19)	—	(384)
Selling, general and administrative expenses	(13)	(216)	(19)	38	(210)
Operating income (loss)	(14)	756	(19)	6	729
Other income	1	14	—	(2)	13
Other deductions	—	(2)	—	—	(2)
Interest expense and related charges	(29)	(241)	(6)	2	(274)
Impacts of Tax Receivable Agreement	33	—	—	—	33
Equity in earnings of unconsolidated investment	—	3	—	—	3
Income (loss) before income taxes	(9)	530	(25)	6	502
Income tax benefit (expense)	4	(160)	14	(6)	(148)
Equity in earnings (loss) of subsidiaries, net of tax	361	(9)	—	(352)	—
Net income (loss)	356	361	(11)	(352)	354
Net loss attributable to noncontrolling interest	—	—	2	—	2
Net income (loss) attributable to Vistra Energy	\$ 356	\$ 361	\$ (9)	\$ (352)	\$ 356

Condensed Statements of Consolidating Income (Loss) for the Three Months Ended June 30, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Operating revenues	\$ —	\$ 2,508	\$ 68	\$ (2)	\$ 2,574
Fuel, purchased power costs and delivery fees	—	(1,166)	(51)	1	(1,216)
Operating costs	—	(370)	(16)	—	(386)
Depreciation and amortization	—	(371)	(18)	—	(389)
Selling, general and administrative expenses	(192)	(160)	(2)	2	(352)
Operating income (loss)	(192)	441	(19)	1	231
Other income	3	5	—	(1)	7
Other deductions	—	(1)	—	—	(1)
Interest expense and related charges	(87)	(58)	(1)	—	(146)
Impacts of Tax Receivable Agreement	(64)	—	—	—	(64)
Equity in earnings of unconsolidated investment	—	4	—	—	4
Income (loss) before income taxes	(340)	391	(20)	—	31
Income tax benefit (expense)	102	(34)	6	—	74
Equity in earnings (loss) of subsidiaries, net of tax	343	(14)	—	(329)	—
Net income (loss)	105	343	(14)	(329)	105
Net loss attributable to noncontrolling interest	—	—	3	—	3
Net income (loss) attributable to Vistra Energy	\$ 105	\$ 343	\$ (11)	\$ (329)	\$ 108

Condensed Statements of Consolidating Income (Loss) for the Six Months Ended June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Operating revenues	\$ —	\$ 5,761	\$ 110	\$ (116)	\$ 5,755
Fuel, purchased power costs and delivery fees	—	(2,612)	(48)	60	(2,600)
Operating costs	—	(726)	(29)	—	(755)
Depreciation and amortization	(2)	(746)	(42)	—	(790)
Selling, general and administrative expenses	(31)	(395)	(38)	72	(392)
Operating income (loss)	(33)	1,282	(47)	16	1,218
Other income	15	31	1	(8)	39
Other deductions	—	(5)	—	—	(5)
Interest expense and related charges	(72)	(419)	(12)	8	(495)
Impacts of Tax Receivable Agreement	36	—	—	—	36
Equity in earnings of unconsolidated investment	—	10	—	—	10
Income (loss) before income taxes	(54)	899	(58)	16	803
Income tax benefit (expense)	17	(249)	23	(16)	(225)
Equity in earnings (loss) of subsidiaries, net of tax	618	(32)	—	(586)	—
Net income (loss)	581	618	(35)	(586)	578
Net loss attributable to noncontrolling interest	—	—	3	—	3
Net income (loss) attributable to Vistra Energy	\$ 581	\$ 618	\$ (32)	\$ (586)	\$ 581

Condensed Statements of Consolidating Income (Loss) for the Six Months Ended June 30, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Operating revenues	\$ —	\$ 3,272	\$ 68	\$ (2)	\$ 3,338
Fuel, purchased power costs and delivery fees	—	(1,816)	(51)	1	(1,866)
Operating costs	—	(564)	(16)	—	(580)
Depreciation and amortization	—	(524)	(18)	—	(542)
Selling, general and administrative expenses	(226)	(288)	(2)	2	(514)
Operating income (loss)	(226)	80	(19)	1	(164)
Other income	6	12	1	(1)	18
Other deductions	—	(3)	—	—	(3)
Interest expense and related charges	(87)	(49)	(1)	—	(137)
Impacts of Tax Receivable Agreement	(82)	—	—	—	(82)
	—	4	—	—	4
Income (loss) before income taxes	(389)	44	(19)	—	(364)
Income tax benefit (expense)	117	41	5	—	163
Equity in earnings (loss) of subsidiaries, net of tax	71	(14)	—	(57)	—
Net income (loss)	(201)	71	(14)	(57)	(201)
Net loss attributable to noncontrolling interest	—	—	3	—	3
Net income (loss) attributable to Vistra Energy	\$ (201)	\$ 71	\$ (11)	\$ (57)	\$ (198)

Condensed Statements of Consolidating Comprehensive Income (Loss) for the Three Months Ended June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss)	\$ 356	\$ 361	\$ (11)	\$ (352)	\$ 354
Other comprehensive income (loss), net of tax effects:					
Effect related to pension and other retirement benefit obligations	—	—	—	—	—
Total other comprehensive income	—	—	—	—	—
Comprehensive income (loss)	356	361	(11)	(352)	354
Comprehensive loss attributable to noncontrolling interest	—	—	2	—	2
Comprehensive income (loss) attributable to Vistra Energy	\$ 356	\$ 361	\$ (9)	\$ (352)	\$ 356

Condensed Statements of Consolidating Comprehensive Income (Loss) for the Three Months Ended June 30, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss)	\$ 105	\$ 343	\$ (14)	\$ (329)	\$ 105
Other comprehensive income (loss), net of tax effects:					
Effect related to pension and other retirement benefit obligations	—	—	—	—	—
Total other comprehensive income	—	—	—	—	—
Comprehensive income (loss)	\$ 105	\$ 343	\$ (14)	\$ (329)	\$ 105
Comprehensive loss attributable to noncontrolling interest	—	—	3	—	3
Comprehensive income (loss) attributable to Vistra Energy	\$ 105	\$ 343	\$ (11)	\$ (329)	\$ 108

Condensed Statements of Consolidating Comprehensive Income (Loss) for the Six Months Ended June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss)	\$ 581	\$ 618	\$ (35)	\$ (586)	\$ 578
Other comprehensive income (loss), net of tax effects:					
Effect related to pension and other retirement benefit obligations	1	—	—	—	1
Total other comprehensive income	1	—	—	—	1
Comprehensive income (loss)	582	618	(35)	(586)	579
Comprehensive loss attributable to noncontrolling interest	—	—	3	—	3
Comprehensive income (loss) attributable to Vistra Energy	\$ 582	\$ 618	\$ (32)	\$ (586)	\$ 582

Condensed Statements of Consolidating Comprehensive Income (Loss) for the Six Months Ended June 30, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Net income (loss)	\$ (201)	\$ 71	\$ (14)	\$ (57)	\$ (201)
Other comprehensive income (loss), net of tax effects:					
Effect related to pension and other retirement benefit obligations	1	—	—	—	1
Total other comprehensive income	1	—	—	—	1
Comprehensive income (loss)	\$ (200)	\$ 71	\$ (14)	\$ (57)	\$ (200)
Comprehensive loss attributable to noncontrolling interest	—	—	3	—	3
Comprehensive income (loss) attributable to Vistra Energy	\$ (200)	\$ 71	\$ (11)	\$ (57)	\$ (197)

Condensed Statements of Consolidating Cash Flows for the Six Months Ended June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows — operating activities:					
Cash provided by (used in) operating activities	\$ (127)	\$ 1,111	\$ (102)	\$ —	\$ 882
Cash flows — financing activities:					
Issuances of long-term debt	—	4,600	—	—	4,600
Repayments/repurchases of debt	(2,114)	(2,023)	—	—	(4,137)
Net borrowings under accounts receivable securitization program	—	—	91	—	91
Cash dividends paid	(120)	(3,195)	—	3,195	(120)
Stock repurchase	(457)	—	—	—	(457)
Debt tender offer and other financing fees	(92)	(54)	—	—	(146)
Other, net	(1)	—	—	—	(1)
Cash provided by (used in) financing activities	(2,784)	(672)	91	3,195	(170)
Cash flows — investing activities:					
Capital expenditures, including LTSA prepayments	(1)	(246)	—	—	(247)
Nuclear fuel purchases	—	(20)	—	—	(20)
Development and growth expenditures	—	(36)	—	—	(36)
Proceeds from sales of nuclear decommissioning trust fund securities	—	292	—	—	292
Investments in nuclear decommissioning trust fund securities	—	(302)	—	—	(302)
Proceeds from sale of environmental allowances	—	31	—	—	31
Purchases of environmental allowances	—	(138)	—	—	(138)
Dividend received from subsidiaries	3,195	—	—	(3,195)	—
Other, net	—	21	—	—	21
Cash provided by (used in) investing activities	3,194	(398)	—	(3,195)	(399)
Net change in cash, cash equivalents and restricted cash	283	41	(11)	—	313
Cash, cash equivalents and restricted cash — beginning balance	228	453	12	—	693
Cash, cash equivalents and restricted cash — ending balance	\$ 511	\$ 494	\$ 1	\$ —	\$ 1,006

Condensed Statements of Consolidating Cash Flows for the Six Months Ended June 30, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows — operating activities:					
Cash provided by (used in) operating activities	\$ (280)	\$ (109)	\$ 360	\$ —	\$ (29)
Cash flows — financing activities:					
Repayments/repurchases of debt	(840)	(498)	—	—	(1,338)
Stock repurchase	(63)	—	—	—	(63)
Debt financing fees	(29)	(17)	—	—	(46)
Other, net	—	4	—	—	4
Cash provided by (used in) financing activities	(932)	(511)	—	—	(1,443)
Cash flows — investing activities:					
Capital expenditures	(4)	(147)	(2)	—	(153)
Nuclear fuel purchases	—	(28)	—	—	(28)
Development and growth expenditures	—	(21)	—	—	(21)
Cash acquired in the Merger	418	27	—	—	445
Proceeds from sales of nuclear decommissioning trust fund securities	—	93	—	—	93
Investments in nuclear decommissioning trust fund securities	—	(103)	—	—	(103)
Proceeds from sale of environmental allowances	—	—	—	—	—
Purchases of environmental allowances	—	(1)	—	—	(1)
Other, net	(4)	359	(345)	—	10
Cash provided by (used in) investing activities	410	179	(347)	—	242
Net change in cash, cash equivalents and restricted cash	(802)	(441)	13	—	(1,230)
Cash, cash equivalents and restricted cash — beginning balance	1,183	863	—	—	2,046
Cash, cash equivalents and restricted cash — ending balance	\$ 381	\$ 422	\$ 13	\$ —	\$ 816

Condensed Consolidating Balance Sheet as of June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	\$ 469	\$ 494	\$ 1	\$ —	\$ 964
Restricted cash	42	—	—	—	42
Advances to affiliates	—	40	1	(41)	—
Trade accounts receivable — net	11	640	650	(200)	1,101
Accounts receivable — affiliates	2	770	242	(1,014)	—
Notes due from affiliates	—	102	—	(102)	—
Income taxes receivable	—	—	—	—	—
Inventories	—	453	23	—	476
Commodity and other derivative contractual assets	—	1,418	—	—	1,418
Margin deposits related to commodity contracts	—	253	—	—	253
Prepaid expense and other current assets	130	140	15	—	285
Total current assets	654	4,310	932	(1,357)	4,539
Investments	—	1,390	32	—	1,422
Investment in unconsolidated subsidiary	—	127	—	—	127
Investment in affiliated companies	8,925	123	—	(9,048)	—
Property, plant and equipment — net	4	13,713	543	—	14,260
Operating lease right-of-use assets	—	34	—	—	34
Goodwill	—	2,082	—	—	2,082
Identifiable intangible assets — net	36	2,344	3	—	2,383
Commodity and other derivative contractual assets	—	124	—	—	124
Accumulated deferred income taxes	810	415	—	(81)	1,144
Other noncurrent assets	131	267	7	—	405
Total assets	\$ 10,560	\$ 24,929	\$ 1,517	\$ (10,486)	\$ 26,520
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts receivable securitization program	\$ —	\$ —	\$ 430	\$ —	\$ 430
Advances from affiliates	—	1	40	(41)	—
Long-term debt due currently	8	148	5	—	161
Trade accounts payable	—	761	211	(190)	782
Accounts payable — affiliates	556	143	315	(1,014)	—
Notes due to affiliates	—	—	101	(101)	—
Commodity and other derivative contractual liabilities	—	1,514	—	—	1,514
Margin deposits related to commodity contracts	—	8	—	—	8
Accrued taxes	12	—	—	—	12
Accrued taxes other than income	—	114	1	—	115
Accrued interest	21	65	7	(11)	82
Asset retirement obligations	—	232	—	—	232
Operating lease liabilities	—	12	1	—	13
Other current liabilities	53	253	2	—	308
Total current liabilities	650	3,251	1,113	(1,357)	3,657
59					

Condensed Consolidating Balance Sheet as of June 30, 2019
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Long-term debt, less amounts due currently	1,602	9,560	31	—	11,193
Operating lease liabilities	—	38	2	—	40
Commodity and other derivative contractual liabilities	—	404	—	—	404
Accumulated deferred income taxes	—	—	91	(81)	10
Tax Receivable Agreement obligation	384	—	—	—	384
Asset retirement obligations	—	2,119	14	—	2,133
Identifiable intangible liabilities — net	—	207	124	—	331
Other noncurrent liabilities and deferred credits	20	425	19	—	464
Total liabilities	2,656	16,004	1,394	(1,438)	18,616
Total stockholders' equity	7,904	8,925	123	(9,048)	7,904
Noncontrolling interest in subsidiary	—	—	—	—	—
Total liabilities and equity	\$ 10,560	\$ 24,929	\$ 1,517	\$ (10,486)	\$ 26,520

Condensed Consolidating Balance Sheet as of December 31, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	\$ 171	\$ 453	\$ 12	\$ —	\$ 636
Restricted cash	57	—	—	—	57
Advances to affiliates	11	11	—	(22)	—
Trade accounts receivable — net	4	729	464	(110)	1,087
Accounts receivable - affiliates	—	245	—	(245)	—
Notes due from affiliates	—	101	—	(101)	—
Income taxes receivable	—	1	—	(1)	—
Inventories	—	391	21	—	412
Commodity and other derivative contractual assets	—	730	—	—	730
Margin deposits related to commodity contracts	—	361	—	—	361
Prepaid expense and other current assets	2	134	16	—	152
Total current assets	245	3,156	513	(479)	3,435
Investments	—	1,218	32	—	1,250
Investments in unconsolidated subsidiary	—	131	—	—	131
Investment in affiliated companies	11,186	263	—	(11,449)	—
Property, plant and equipment — net	15	14,017	580	—	14,612
Goodwill	—	2,068	—	—	2,068
Identifiable intangible assets — net	10	2,480	3	—	2,493
Commodity and other derivative contractual assets	—	109	—	—	109
Accumulated deferred income taxes	809	599	—	(72)	1,336
Other noncurrent assets	255	330	5	—	590
Total assets	\$ 12,520	\$ 24,371	\$ 1,133	\$ (12,000)	\$ 26,024

Condensed Consolidating Balance Sheet as of December 31, 2018
(Millions of Dollars)

	Parent (Issuer)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
LIABILITIES AND EQUITY					
Current liabilities:					
Accounts receivable securitization program	\$ —	\$ —	\$ 339	\$ —	\$ 339
Advances from affiliates	—	—	22	(22)	—
Long-term debt due currently	23	163	5	—	191
Trade accounts payable	2	928	121	(106)	945
Accounts payable - affiliates	236	—	9	(245)	—
Notes due to affiliates	—	—	101	(101)	—
Commodity and other derivative contractual liabilities	—	1,376	—	—	1,376
Margin deposits related to commodity contracts	—	4	—	—	4
Accrued income taxes	11	—	—	(1)	10
Accrued taxes other than income	—	181	1	—	182
Accrued interest	48	29	4	(4)	77
Asset retirement obligations	—	156	—	—	156
Other current liabilities	74	267	4	—	345
Total current liabilities	394	3,104	606	(479)	3,625
Long-term debt, less amounts due currently	3,819	7,027	28	—	10,874
Commodity and other derivative contractual liabilities	—	270	—	—	270
Accumulated deferred income taxes	—	—	82	(72)	10
Tax Receivable Agreement obligation	420	—	—	—	420
Asset retirement obligations	—	2,203	14	—	2,217
Identifiable intangible liabilities — net	—	278	123	—	401
Other noncurrent liabilities and deferred credits	20	303	17	—	340
Total liabilities	4,653	13,185	870	(551)	18,157
Total stockholders' equity	7,867	11,186	259	(11,449)	7,863
Noncontrolling interest in subsidiary	—	—	4	—	4
Total liabilities and equity	\$ 12,520	\$ 24,371	\$ 1,133	\$ (12,000)	\$ 26,024

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations for the three and six months ended June 30, 2019 and 2018 should be read in conjunction with our condensed consolidated financial statements and the notes to those statements.

All dollar amounts in the tables in the following discussion and analysis are stated in millions of U.S. dollars unless otherwise indicated.

Business

Vistra Energy is a holding company operating an integrated power business in markets throughout the U.S. Through our subsidiaries, we are engaged in competitive electricity market activities including power generation, wholesale energy sales and purchases, commodity risk management and retail sales of electricity and related services to end users.

Operating Segments

Vistra Energy has six reportable segments: (i) Retail, (ii) ERCOT, (iii) PJM, (iv) NY/NE (comprising NYISO and ISO-NE), (v) MISO and (vi) Asset Closure. The PJM, NY/NE and MISO segments were established on the Merger Date to reflect markets served by businesses acquired in the Merger. See Note 18 to the Financial Statements for further information concerning reportable business segments.

Significant Activities and Events and Items Influencing Future Performance

Acquisition of Crius

On July 15, 2019, Vienna Acquisition B.C. Ltd., an indirect, wholly owned subsidiary of Vistra Energy, completed the acquisition of the equity interests of two wholly owned subsidiaries of Crius that indirectly own the operating business of Crius (Crius Transaction). Crius is an energy retailer selling both electricity and natural gas products to residential and small business customers in 19 states and the District of Columbia.

The Crius Transaction provides a high degree of overlap with Vistra Energy's generation fleet with approximately 11.6 TWh of annual load, improving Vistra Energy's match of its generation to load profile to approximately 45 percent, reducing risk. The Crius Transaction also establishes a platform for future growth by leveraging Vistra Energy's existing retail marketing capabilities and Crius' experienced team. The Crius Transaction enhances the integrated value proposition through collateral and transaction efficiencies, particularly via Crius' retail portfolio.

Vistra Energy funded the purchase price of approximately \$400 million (including \$380 million for outstanding trust units) using cash on hand and assumption of Crius' net debt of approximately \$111 million.

Dynegy Merger Transaction

On the Merger Date, Vistra Energy and Dynegy completed the transactions contemplated by the Merger Agreement. Pursuant to the Merger Agreement, Dynegy merged with and into Vistra Energy, with Vistra Energy continuing as the surviving corporation.

See Note 2 to the Financial Statements for a summary of the Merger transaction and business combination accounting.

Acquisition, Development and Disposition of Generation Facilities

See Note 3 to the Financial Statements for a summary of our solar generation and battery energy storage projects. See Note 4 to the Financial Statements for a summary of our generation plant retirements in 2018.

Dividend Program

In November 2018, Vistra Energy announced that the Board had adopted a dividend program pursuant to which Vistra Energy would initiate an annual dividend of approximately \$0.50 per share, beginning in the first quarter of 2019. In February 2019 and May 2019, the Board declared quarterly dividends of \$0.125 per share that were paid in March 2019 and June 2019, respectively.

Share Repurchase Program

In June 2018, we announced that the Board had authorized a share repurchase program under which up to \$500 million of our outstanding common stock may be repurchased. Repurchases under this program were completed on October 19, 2018. On a cumulative basis, 21,421,925 shares of our common stock were repurchased for \$500 million (including related fees and expenses) at an average price of \$23.36 per share of common stock.

In November 2018, we announced that the Board had authorized an incremental share repurchase program under which up to \$1.25 billion of our outstanding stock may be purchased. Through June 30, 2019, 30,173,420 shares of our common stock had been repurchased for \$726 million (including related fees and expenses) at an average price of \$24.05 per share of common stock. At June 30, 2019, \$524 million was available for additional repurchases under the program. On a cumulative basis through July 31, 2019, 33,569,321 shares of our common stock had been repurchased for \$801 million (including related fees and expenses) at an average price of \$23.86 per share of common stock. At July 31, 2019 \$449 million was available for additional purchases under the program. We intend to implement the program opportunistically from time to time in 2019 and 2020.

Shares of the Company's common stock may be repurchased in open market transactions at prevailing market prices, in privately negotiated transactions or by other means in accordance with the Exchange Act, or by other means in accordance with federal securities laws. The actual timing, number and value of shares repurchased under the share repurchase program will be determined at our discretion and will depend on a number of factors, including the market price of our stock, general market and economic conditions, applicable legal requirements and compliance with the terms of our debt agreements and the Tax Matters Agreement.

Debt Activity

We have stated our objective is to reduce our consolidated net leverage from current levels to approximately 2.5x net debt/EBITDA. We also intend to continue to simplify and optimize our capital structure, maintain adequate liquidity and pursue opportunities to refinance our long-term debt to extend maturities and/or reduce ongoing interest expense. In the second quarter of 2019, we completed several transactions that we believe, in the aggregate, advanced all of these goals. While the premiums, fees and expenses that we paid in connection with these transactions resulted in an increase in our total debt as of June 30, 2019 relative to March 31, 2019, we expect the ongoing free cash flow savings will offset this increase over the next few years. See Note 11 to the Financial Statements for details of our long-term debt activity and Note 10 to the Financial Statements for details of the accounts receivable securitization program.

Issuance of Vistra Operations Senior Secured Notes — In June 2019, Vistra Operations issued and sold \$2.0 billion aggregate principal amount of senior secured notes (Senior Secured Notes), consisting of \$1.2 billion aggregate principal amount of 3.55% senior secured notes due 2024 at a price to the public of 99.807% of their face value and \$800 million aggregate principal amount of 4.30% senior secured notes due 2029 at a price to the public of 99.784% of their face value in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (Senior Secured Notes Offering). Net proceeds from the Senior Secured Notes Offering totaling \$1.976 billion, together with cash on hand, were used to prepay certain amounts outstanding and accrued interest (together with fees and expenses) under the Vistra Operations Credit Facilities' Term Loan B Facility described below.

The indenture governing the Senior Secured Notes (as may be amended or supplemented from time to time, the Senior Secured Indenture) provides for the full and unconditional guarantee by the Guarantor Subsidiaries of the punctual payment of the principal of, premium, if any, interest on and all other amounts due under the Senior Secured Notes and the Senior Secured Notes Indenture. The Senior Secured Indenture further provides that the Senior Secured Notes will be secured by a first-priority security interest in the same collateral that is pledged for the benefit of the lenders under the Vistra Operations Credit Facilities, which consists of a substantial portion of the property, assets and rights owned by Vistra Operations and the Guarantor Subsidiaries, as well as the stock of Vistra Operations, which is held by Vistra Intermediate. The collateral securing the Senior Secured Notes will be released if Vistra Operations' senior, unsecured long-term debt securities obtain an investment grade rating from two out of the three rating agencies, subject to reversion if such rating agencies withdraw the investment grade rating of the Issuer's senior, unsecured long-term debt securities or downgrade such rating below investment grade.

Issuance of Vistra Operations 5.00% Senior Notes Due 2027 — In June 2019, Vistra Operations issued and sold \$1.3 billion aggregate principal amount of 5.00% senior unsecured notes due 2027 in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the June 2019 Notes Offering). Net proceeds from the sale of senior notes totaling approximately \$1.287 billion, together with cash on hand, were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with (i) the June 2019 Tender Offer described below and (ii) the redemption of approximately \$306 million of our outstanding 7.375% senior unsecured notes due 2022 and approximately \$87 million of our outstanding 7.625% senior unsecured notes due 2024 in July 2019.

June 2019 Tender Offer — In June 2019, Vistra Energy used the net proceeds from the June 2019 Notes Offering to fund a cash tender offer (the June 2019 Tender Offer) to purchase for cash \$845 million aggregate principal amount of certain notes assumed in the Merger, including \$173 million of 7.375% senior unsecured notes due 2022 and \$672 million of 7.625% senior unsecured notes due 2024.

Repayment of Certain Term Loans Under the Vistra Operations Credit Facilities — In June 2019, Vistra Operations used the net proceeds from Senior Secured Notes Offering described above to repay \$889 million under the Term Loan B-1 Facility, the entire amount outstanding of \$977 million under the Term Loan B-2 Facility and \$134 million under the Term Loan B-3 Facility.

2019 Amendments to Vistra Operations Credit Facilities — In March 2019 and May 2019, the Credit Facilities Agreement was amended whereby aggregate commitments under the Revolving Credit Facility were increased from \$2.5 billion to \$2.725 billion. The letter of credit sub-facility was also increased from \$2.3 billion to \$2.35 billion.

Issuance of Vistra Operations 5.625% Senior Notes Due 2027 — In February 2019, Vistra Operations issued and sold \$1.3 billion aggregate principal amount of 5.625% senior unsecured notes due 2027 in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the February 2019 Notes Offering). Net proceeds from the sale of the senior notes totaling approximately \$1.287 billion, together with cash on hand, were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with (i) the February 2019 Tender Offer described below, (ii) the redemption of approximately \$35 million aggregate principal amount of our 7.375% senior unsecured notes due 2022 and (iii) the redemption of the remaining approximately \$25 million aggregate principal amount of our outstanding 8.034% senior unsecured notes due 2024.

February 2019 Tender Offer — In February 2019, Vistra Energy used the net proceeds from the February 2019 Notes Offering to fund a cash tender offer (the February 2019 Tender Offer) to purchase for cash approximately \$1.193 billion aggregate principal amount of 7.375% senior unsecured notes due 2022 that we assumed in the Merger.

Bond Repurchase Program — In November 2018, the Board authorized a bond repurchase program under which up to \$200 million principal amount of outstanding Vistra Energy senior unsecured notes could be repurchased. Through June 30, 2019, \$119 million aggregate principal amount of senior unsecured notes had been repurchased under the program. No repurchases were made in the six months ended June 30, 2019.

In July 2019, the Board authorized up to \$1.0 billion to repay or repurchase any outstanding debt of the Company or its subsidiaries, with this authority superseding the previously authorized bond repurchase program.

Accounts Receivable Securitization Program — In August 2018, TXU Energy Receivables Company LLC (RecCo), a wholly-owned subsidiary of TXU Energy, and Vistra Energy entered into an accounts receivable financing facility (Receivables Facility). In April 2019, the terms of the Receivable Facility were amended to include Dynegy Energy Services, and the Receivables Facility provided RecCo with the ability to borrow up to \$450 million at June 30, 2019. In July 2019, the Receivables Facility was renewed through July 2020 with the ability to borrow up to \$600 million until the settlement date in November 2019 (in order to align with the peak retail season), after which the program will revert to \$450 million.

Issuance of Vistra Operations 5.500% Senior Notes Due 2026 — In August 2018, Vistra Operations issued and sold \$1 billion aggregate principal amount of the 5.500% senior unsecured notes due 2026 in an offering to eligible purchasers under Rule 144A and Regulation S under the Securities Act (the 2018 Notes Offering). Net proceeds from the sale of the senior unsecured notes totaling approximately \$990 million, together with cash on hand and cash received from the funding of the accounts receivable securitization program described above, were used to pay the purchase price and accrued interest (together with fees and expenses) required in connection with the 2018 Tender Offers described below.

2018 Tender Offers — In August 2018, Vistra Energy used the net proceeds from the 2018 Notes Offering, proceeds from the accounts receivable securitization program and cash on hand to fund cash tender offers to purchase for cash \$1.542 billion of senior unsecured notes assumed in the Merger (the 2018 Tender Offers).

2018 Amendment to Vistra Operations Credit Facilities — In June 2018, the Credit Facilities Agreement was amended. Among other things, the amendment included the following updated terms:

- Aggregate commitments under the Revolving Credit Facility were increased from \$860 million to \$2.5 billion. The letter of credit sub-facility was also increased from \$715 million to \$2.3 billion. The maturity date of the Revolving Credit Facility was extended from August 4, 2021 to June 14, 2023. Pricing terms for the Revolving Credit Facility were reduced from LIBOR plus an applicable margin of 2.25% to LIBOR plus an applicable margin of 1.75%. Pricing terms for letters of credit issued under the Revolving Credit Facility were reduced from 2.25% to 1.75%.
- Pricing terms for the Term Loan B-1 Facility were reduced from LIBOR plus an applicable margin of 2.50% to LIBOR plus an applicable margin of 2.00%.
- Borrowings under the new Term Loan B-3 Facility of \$2.050 billion principal amount were used to repay borrowings under the credit agreement that Vistra Energy assumed from Dynegy in connection with the Merger.
- Borrowings under the Term Loan C Facility of \$500 million were repaid using \$500 million of cash from collateral accounts used to backstop letters of credit.

Redemption of Debt — In May 2018, \$850 million aggregate principal amount of outstanding 6.75% Senior Notes due 2019 was redeemed at a redemption price of 101.688% of the aggregate principal amount, plus accrued and unpaid interest to but not including the date of redemption.

Natural Gas Price and Market Heat Rate Exposure

Taking together forward wholesale, retail electricity sales and other retail customer considerations and all other hedging positions in ERCOT at June 30, 2019, we had effectively hedged an estimated 98% and 100% of the natural gas price exposure related to our overall ERCOT business for 2019 and 2020, respectively. These percentages assume conversion of generation positions based on market heat rates and an estimate of natural gas generally being on the margin 70% to 90% of the time in the ERCOT market. Additionally, taking into consideration our overall heat rate exposure and related hedging positions in ERCOT at June 30, 2019, we had effectively hedged 95% and 70% of the heat rate exposure to our overall business for 2019 and 2020, respectively. We make the distinction between natural gas price exposure and heat rate exposure for the ERCOT market because of the high percentage of time natural gas is on the margin and the availability of traded products in ERCOT to hedge heat rate directly. Generation volumes hedged in PJM, NYISO, ISO-NE, MISO and CAISO at June 30, 2019 were as follows:

	2019	2020
PJM	93%	78%
NYISO/ISO-NE	100%	53%
MISO/CAISO	79%	55%

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The following sensitivity table provides approximate estimates of the potential impact of movements in natural gas prices and market heat rates on realized pretax earnings (in millions) taking into account the hedge positions noted in the paragraph above for the periods presented. The estimates related to price sensitivity are based on our expected generation and retail positions, related hedges and forward prices as of June 30, 2019 .

	Balance 2019 (a)	2020
ERCOT:		
\$0.50/MMBtu increase in natural gas price (b)	\$ ~20	\$ ~50
\$0.50/MMBtu decrease in natural gas price (b)	\$ ~(15)	\$ ~(40)
1.0/MMBtu/MWh increase in market heat rate (c)	\$ ~15	\$ ~95
1.0/MMBtu/MWh decrease in market heat rate (c)	\$ ~(15)	\$ ~(85)
PJM:		
\$0.50/MMBtu increase in natural gas price (d)	\$ ~20	\$ ~55
\$0.50/MMBtu decrease in natural gas price (d)	\$ ~(15)	\$ ~(40)
1.0/MMBtu/MWh increase in market heat rate (e)	\$ ~10	\$ ~50
1.0/MMBtu/MWh decrease in market heat rate (e)	\$ ~(10)	\$ ~(35)
NYISO/ISO-NE:		
\$0.50/MMBtu increase in natural gas price (d)	\$ ~5	\$ ~45
\$0.50/MMBtu decrease in natural gas price (d)	\$ —	\$ ~(35)
1.0/MMBtu/MWh increase in market heat rate (f)	\$ ~5	\$ ~45
1.0/MMBtu/MWh decrease in market heat rate (f)	\$ —	\$ ~(30)
MISO/CAISO:		
\$0.50/MMBtu increase in natural gas price (d)	\$ ~30	\$ ~100
\$0.50/MMBtu decrease in natural gas price (d)	\$ ~(15)	\$ ~(80)
1.0/MMBtu/MWh increase in market heat rate (g)	\$ ~10	\$ ~50
1.0/MMBtu/MWh decrease in market heat rate (g)	\$ ~(10)	\$ ~(40)

(a) Balance of 2019 is from August 1, 2019 through December 31, 2019 .

(b) Based on Houston Ship Channel natural gas prices at June 30, 2019 .

(c) Based on ERCOT North Hub around-the-clock heat rates at June 30, 2019 .

(d) Based on NYMEX natural gas prices at June 30, 2019 .

(e) Based on AEP Dayton Hub, Northern Illinois Hub and PJM West Hub around-the-clock heat rates at June 30, 2019 .

(f) Based on Massachusetts Hub and NYISO Zone C around-the-clock heat rates at June 30, 2019 .

(g) Based on Indiana Hub and NP15 around-the-clock heat rates at June 30, 2019 .

Environmental Matters — See Note 13 to Financial Statements for a discussion of greenhouse gas emissions, regional haze, state implementation plan and other recent EPA actions as well as related litigation.

RESULTS OF OPERATIONS
Consolidated Financial Results — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) \$ Change	Six Months Ended June 30,		Favorable (Unfavorable) \$ Change
	2019	2018		2019	2018	
Operating revenues	\$ 2,832	\$ 2,574	\$ 258	\$ 5,755	\$ 3,338	\$ 2,417
Fuel, purchased power costs and delivery fees	(1,139)	(1,216)	77	(2,600)	(1,866)	(734)
Operating costs	(370)	(386)	16	(755)	(580)	(175)
Depreciation and amortization	(384)	(389)	5	(790)	(542)	(248)
Selling, general and administrative expenses	(210)	(352)	142	(392)	(514)	122
Operating income (loss)	729	231	498	1,218	(164)	1,382
Other income	13	7	6	39	18	21
Other deductions	(2)	(1)	(1)	(5)	(3)	(2)
Interest expense and related charges	(274)	(146)	(128)	(495)	(137)	(358)
Impacts of Tax Receivable Agreement	33	(64)	97	36	(82)	118
Equity in earnings of unconsolidated investment	3	4	(1)	10	4	6
Income (loss) before income taxes	502	31	471	803	(364)	1,167
Income tax (expense) benefit	(148)	74	(222)	(225)	163	(388)
Net income (loss)	\$ 354	\$ 105	\$ 249	\$ 578	\$ (201)	\$ 779

Three Months Ended June 30, 2019

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Operating revenues	\$ 1,421	\$ 1,671	\$ 686	\$ 254	\$ 246	\$ —	\$ (1,446)	\$ 2,832
Fuel, purchased power costs and delivery fees	(1,828)	(299)	(265)	(100)	(120)	—	1,473	(1,139)
Operating costs	(11)	(174)	(86)	(25)	(54)	(12)	(8)	(370)
Depreciation and amortization	(59)	(128)	(134)	(39)	(3)	—	(21)	(384)
Selling, general and administrative expenses	(104)	(23)	(16)	(12)	(34)	(4)	(17)	(210)
Operating income (loss)	(581)	1,047	185	78	35	(16)	(19)	729
Other income	—	8	—	—	2	1	2	13
Other deductions	—	(2)	—	—	—	—	—	(2)
Interest expense and related charges	(4)	3	(3)	(1)	(2)	—	(267)	(274)
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	33	33
Equity in earnings of unconsolidated investment	—	—	1	2	—	—	—	3
Income (loss) before income taxes	(585)	1,056	183	79	35	(15)	(251)	502
Income tax expense	—	—	—	—	—	—	(148)	(148)
Net income (loss)	\$ (585)	\$ 1,056	\$ 183	\$ 79	\$ 35	\$ (15)	\$ (399)	\$ 354

Three Months Ended June 30, 2018

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Operating revenues	\$ 1,454	\$ 1,327	\$ 485	\$ 187	\$ 257	\$ 21	\$ (1,157)	\$ 2,574
Fuel, purchased power costs and delivery fees	(1,566)	(337)	(239)	(108)	(133)	(10)	1,177	(1,216)
Operating costs	(9)	(182)	(82)	(25)	(76)	(6)	(6)	(386)
Depreciation and amortization	(80)	(108)	(125)	(49)	(3)	—	(24)	(389)
Selling, general and administrative expenses	(102)	(20)	(15)	(12)	(14)	(4)	(185)	(352)
Operating income (loss)	(303)	680	24	(7)	31	1	(195)	231
Other income	15	8	—	—	—	1	(17)	7
Other deductions	—	(2)	—	—	—	—	1	(1)
Interest expense and related charges	—	(7)	(2)	(1)	—	—	(136)	(146)
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	(64)	(64)
Equity in earnings of unconsolidated investment	—	—	1	3	—	—	—	4
Income before income taxes	(288)	679	23	(5)	31	2	(411)	31
Income tax benefit	—	—	—	—	—	—	74	74
Net income (loss)	\$ (288)	\$ 679	\$ 23	\$ (5)	\$ 31	\$ 2	\$ (337)	\$ 105

In the second quarter of 2019, we continued with our balanced capital allocation program, refinancing approximately \$2.9 billion of debt, which lowered interest rates and extended maturities, and returning approximately \$212 million to stockholders through share repurchases. Our integrated energy company produced results during the quarter as expected, with our retail segment delivering strong margins during the period while our largely hedged, in-the-money generation fleet operated safely and reliably. Consolidated results increased \$249 million to net income of \$354 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018. The change in results was driven by an \$80 million increase in net income in our ERCOT and Retail segments (including \$46 million in increased unrealized gains in those segments) and \$248 million increase in PJM, NY/NE, and MISO segments, partially offset by increases in interest expense and tax expense.

Interest expense and related charges increased \$128 million to \$274 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018 and reflected a \$144 million increase in unrealized mark-to-market losses on interest rate swaps partially offset by a \$12 million decrease in interest paid/accrued reflecting repayments and repurchases of long-term debt. See Note 19 to the Financial Statements.

For the three months ended June 30, 2019, the Impacts of the Tax Receivable Agreement totaled income of \$33 million and reflected a gain due to the decrease in forecasted taxable income over the projected life of the TRA of \$48 million, partially offset by accretion expense of \$15 million. For the three months ended June 30, 2018, the Impacts of the Tax Receivable Agreement totaled expense of \$64 million and reflected a loss due to changes in the timing of estimated payments and new multistate tax impacts resulting from the Merger of \$46 million and accretion expense of \$18 million. See Note 8 to the Financial Statements for discussion of the impacts of the Tax Receivable Agreement Obligation.

For the three months ended June 30, 2019, income tax expense totaled \$148 million and the effective tax rate was 29.5%. For the three months ended June 30, 2018, income tax benefit totaled \$74 million and the effective tax rate was (238.7)%. See Note 7 to the Financial Statements for reconciliation of the effective rates to the U.S. federal statutory rate.

Six Months Ended June 30, 2019

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Operating revenues	\$ 2,806	\$ 2,625	\$ 1,391	\$ 599	\$ 500	\$ —	\$ (2,166)	\$ 5,755
Fuel, purchased power costs and delivery fees	(3,024)	(633)	(581)	(329)	(272)	—	2,239	(2,600)
Operating costs	(22)	(359)	(169)	(50)	(118)	(21)	(16)	(755)
Depreciation and amortization	(118)	(259)	(265)	(104)	(7)	—	(37)	(790)
Selling, general and administrative expenses	(205)	(39)	(28)	(22)	(57)	(9)	(32)	(392)
Operating income (loss)	(563)	1,335	348	94	46	(30)	(12)	1,218
Other income	—	20	—	—	3	1	15	39
Other deductions	—	(4)	—	—	—	—	(1)	(5)

Interest expense and related charges	(8)	5	(5)	(1)	(3)	—	(483)	(495)
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	36	36
Equity in earnings of unconsolidated investment	—	—	3	7	—	—	—	10
Income (loss) before income taxes	(571)	1,356	346	100	46	(29)	(445)	803
Income tax expense	—	—	—	—	—	—	(225)	(225)
Net income (loss)	<u>\$ (571)</u>	<u>\$ 1,356</u>	<u>\$ 346</u>	<u>\$ 100</u>	<u>\$ 46</u>	<u>\$ (29)</u>	<u>\$ (670)</u>	<u>\$ 578</u>

Six Months Ended June 30, 2018

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Operating revenues	\$ 2,426	\$ 794	\$ 485	\$ 187	\$ 257	\$ 49	\$ (860)	\$ 3,338
Fuel, purchased power costs and delivery fees	(1,601)	(627)	(239)	(108)	(133)	(36)	878	(1,866)
Operating costs	(13)	(347)	(82)	(25)	(76)	(30)	(7)	(580)
Depreciation and amortization	(157)	(173)	(125)	(49)	(3)	—	(35)	(542)
Selling, general and administrative expenses	(200)	(56)	(15)	(12)	(14)	(5)	(212)	(514)
Operating income (loss)	455	(409)	24	(7)	31	(22)	(236)	(164)
Other income	29	20	—	—	—	2	(33)	18
Other deductions	—	(3)	—	—	—	—	—	(3)
Interest expense and related charges	(1)	(15)	(2)	(1)	—	—	(118)	(137)
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	(82)	(82)
Equity in earnings of unconsolidated investment	—	—	1	3	—	—	—	4
Income (loss) before income taxes	483	(407)	23	(5)	31	(20)	(469)	(364)
Income tax benefit	—	—	—	—	—	—	163	163
Net income (loss)	<u>\$ 483</u>	<u>\$ (407)</u>	<u>\$ 23</u>	<u>\$ (5)</u>	<u>\$ 31</u>	<u>\$ (20)</u>	<u>\$ (306)</u>	<u>\$ (201)</u>

In the six months ended June 30, 2019, we refinanced approximately \$4.2 billion of debt and returned approximately \$726 million to stockholders through share repurchases. Our operating segments delivered strong operating performance with a disciplined focus on cost management, while generating and selling electricity in a safe and reliable manner. Consolidated results increased \$779 million to net income of \$578 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018. The change in results was driven by a \$709 million increase in net income in our ERCOT and Retail segments (including \$547 million in increased unrealized gains in those segments) and \$443 million in net income added in our PJM, NY/NE and MISO segments due to the Merger, partially offset by increases in interest expense and tax expense.

Interest expense and related charges increased \$358 million to \$495 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018 and reflected a \$285 million increase in unrealized mark-to-market losses on interest rate swaps and an \$89 million increase in interest paid/accrued reflecting long-term debt assumed in the Merger, partially offset by debt extinguishment gains of \$10 million in 2019. See Note 19 to the Financial Statements.

For the six months ended June 30, 2019, the Impacts of the Tax Receivable Agreement totaled income of \$36 million and reflected a gain due to adjustments to forecasted taxable income and higher net operating losses acquired in the Merger of \$67 million, partially offset by accretion expense of \$31 million. For the six months ended June 30, 2018, the Impacts of the Tax Receivable Agreement totaled expense of \$82 million and reflected a loss due to changes in the timing of estimated payments and new multistate tax impacts resulting from the Merger of \$46 million and accretion expense of \$36 million. See Note 8 to the Financial Statements for discussion of the impacts of the Tax Receivable Agreement Obligation.

For the six months ended June 30, 2019, income tax expense totaled \$225 million and the effective tax rate was 28.0%. For the six months ended June 30, 2018, income tax benefit totaled \$163 million and the effective tax rate was 44.8%. See Note 7 to the Financial Statements for reconciliation of the effective rates to the U.S. federal statutory rate.

Discussion of Adjusted EBITDA

Non-GAAP Measures — In analyzing and planning for our business, we supplement our use of GAAP financial measures with non-GAAP financial measures, including EBITDA and Adjusted EBITDA as performance measures. These non-GAAP financial measures reflect an additional way of viewing aspects of our business that, when viewed with our GAAP results and the accompanying reconciliations to corresponding GAAP financial measures included in the tables below, may provide a more complete understanding of factors and trends affecting our business. These non-GAAP financial measures should not be relied upon to the exclusion of GAAP financial measures and are by definition an incomplete understanding of Vistra Energy and must be considered in conjunction with GAAP measures. In addition, non-GAAP financial measures are not standardized; therefore, it may not be possible to compare these financial measures with other companies' non-GAAP financial measures having the same or similar names. We strongly encourage investors to review our consolidated financial statements and publicly filed reports in their entirety and not rely on any single financial measure.

EBITDA and Adjusted EBITDA — We believe EBITDA and Adjusted EBITDA provide meaningful representations of our operating performance. We consider EBITDA as another way to measure financial performance on an ongoing basis. Adjusted EBITDA is meant to reflect the operating performance of our segments for the period presented. We define EBITDA as earnings (loss) before interest expense, income tax expense (benefit) and depreciation and amortization expense. We define Adjusted EBITDA as EBITDA adjusted to exclude (i) gains or losses on the sale or retirement of certain assets, (ii) the impacts of mark-to-market changes on derivatives related to our portfolio, (iii) the impact of impairment charges, (iv) certain amounts associated with fresh-start reporting, acquisitions, dispositions, transition costs or restructurings, (v) non-cash compensation expense, (vi) impacts from the Tax Receivable Agreement and (vii) other material nonrecurring or unusual items.

Because EBITDA and Adjusted EBITDA are financial measures that management uses to allocate resources, determine our ability to fund capital expenditures, assess performance against our peers, and evaluate overall financial performance, we believe they provide useful information for our shareholders.

When EBITDA or Adjusted EBITDA is discussed in reference to performance on a consolidated basis, the most directly comparable GAAP financial measure to EBITDA and Adjusted EBITDA is Net income (loss).

Adjusted EBITDA — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) \$ Change	Six Months Ended June 30,		Favorable (Unfavorable) \$ Change
	2019	2018		2019	2018	
Net income (loss)	\$ 354	\$ 105	\$ 249	\$ 578	\$ (201)	\$ 779
Income tax expense (benefit)	148	(74)	222	225	(163)	388
Interest expense and related charges	274	146	128	495	137	358
Depreciation and amortization (a)	399	409	(10)	824	582	242
EBITDA before Adjustments	1,175	586	589	2,122	355	1,767
Unrealized net (gain) loss resulting from hedging transactions	(517)	(216)	(301)	(703)	199	(902)
Fresh start/purchase accounting impacts	20	25	(5)	33	35	(2)
Impacts of Tax Receivable Agreement	(33)	64	(97)	(36)	82	(118)
Non-cash compensation expenses	11	42	(31)	24	48	(24)
Transition and merger expenses	27	156	(129)	44	184	(140)
Other, net	9	1	8	10	(4)	14
Adjusted EBITDA	\$ 692	\$ 658	\$ 34	\$ 1,494	\$ 899	\$ 595

(a) Includes nuclear fuel amortization in the ERCOT segment of \$15 million and \$20 million for the three months ended June 30, 2019 and 2018, respectively, and \$34 million and \$40 million for the six months ended June 30, 2019 and 2018, respectively.

	Three Months Ended June 30, 2019							
	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Net income (loss)	\$ (585)	\$ 1,056	\$ 183	\$ 79	\$ 35	\$ (15)	\$ (399)	\$ 354
Income tax expense	—	—	—	—	—	—	148	148
Interest expense and related charges	4	(3)	3	1	2	—	267	274
Depreciation and amortization (a)	59	143	134	39	3	—	21	399
EBITDA before Adjustments	(522)	1,196	320	119	40	(15)	37	1,175
Unrealized net (gain) loss resulting from hedging transactions	797	(1,047)	(163)	(32)	(65)	—	(7)	(517)
Fresh start/purchase accounting impacts	15	(1)	2	1	4	—	(1)	20
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	(33)	(33)
Non-cash compensation expenses	—	—	—	—	—	—	11	11
Transition and merger expenses	—	5	1	1	17	—	3	27
Other, net	3	3	7	2	5	—	(11)	9
Adjusted EBITDA	\$ 293	\$ 156	\$ 167	\$ 91	\$ 1	\$ (15)	\$ (1)	\$ 692

(a) Includes nuclear fuel amortization of \$15 million in ERCOT segment.

Three Months Ended June 30, 2018

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Net income (loss)	\$ (288)	\$ 679	\$ 23	\$ (5)	\$ 31	\$ 2	\$ (337)	\$ 105
Income tax benefit	—	—	—	—	—	—	(74)	(74)
Interest expense and related charges	—	7	2	1	—	—	136	146
Depreciation and amortization (a)	80	128	125	49	3	—	24	409
EBITDA before Adjustments	(208)	814	150	45	34	2	(251)	586
Unrealized net (gain) loss resulting from hedging transactions	462	(667)	(1)	22	(32)	—	—	(216)
Fresh start accounting impacts	15	(2)	(1)	4	8	1	—	25
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	64	64
Non-cash compensation expenses	—	—	—	—	—	—	42	42
Transition and merger expenses	—	2	1	—	3	2	148	156
Other, net	(9)	(4)	5	3	5	—	1	1
Adjusted EBITDA	\$ 260	\$ 143	\$ 154	\$ 74	\$ 18	\$ 5	\$ 4	\$ 658

(a) Includes nuclear fuel amortization of \$20 million in ERCOT segment.

Six Months Ended June 30, 2019

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Net income (loss)	\$ (571)	\$ 1,356	\$ 346	\$ 100	\$ 46	\$ (29)	\$ (670)	\$ 578
Income tax expense	—	—	—	—	—	—	225	225
Interest expense and related charges	8	(5)	5	1	3	—	483	495
Depreciation and amortization (a)	118	293	265	104	7	—	37	824
EBITDA before Adjustments	(445)	1,644	616	205	56	(29)	75	2,122
Unrealized net (gain) loss resulting from hedging transactions	961	(1,298)	(255)	(38)	(50)	—	(23)	(703)
Fresh start/purchase accounting impacts	29	—	(5)	3	8	—	(2)	33
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	(36)	(36)
Non-cash compensation expenses	—	—	—	—	—	—	24	24
Transition and merger expenses	—	6	3	2	24	—	9	44
Other, net	5	8	9	5	10	1	(28)	10
Adjusted EBITDA	\$ 550	\$ 360	\$ 368	\$ 177	\$ 48	\$ (28)	\$ 19	\$ 1,494

(a) Includes nuclear fuel amortization of \$34 million in ERCOT segment.

Six Months Ended June 30, 2018

	Retail	ERCOT	PJM	NY/NE	MISO	Asset Closure	Eliminations / Corporate and Other	Vistra Energy Consolidated
Net income (loss)	\$ 483	\$ (407)	\$ 23	\$ (5)	\$ 31	\$ (20)	\$ (306)	\$ (201)
Income tax benefit	—	—	—	—	—	—	(163)	(163)
Interest expense and related charges	1	15	2	1	—	—	118	137
Depreciation and amortization (a)	157	213	125	49	3	—	35	582
EBITDA before Adjustments	641	(179)	150	45	34	(20)	(316)	355
Unrealized net (gain) loss resulting from hedging transactions	(193)	403	(1)	22	(32)	—	—	199
Fresh start accounting impacts	27	(4)	(1)	4	8	1	—	35
Impacts of Tax Receivable Agreement	—	—	—	—	—	—	82	82
Non-cash compensation expenses	—	—	—	—	—	—	48	48
Transition and merger expenses	—	4	1	—	3	2	174	184
Other, net	(21)	(12)	5	3	5	—	16	(4)
Adjusted EBITDA	\$ 454	\$ 212	\$ 154	\$ 74	\$ 18	\$ (17)	\$ 4	\$ 899

(a) Includes nuclear fuel amortization of \$40 million in ERCOT segment.

Adjusted EBITDA increased by \$34 million to \$692 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018 . Adjusted EBITDA increased by \$595 million to \$1.494 billion in the six months ended June 30, 2019 compared to the six months ended June 30, 2018 .

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
PJM, MISO and NY/NE segments acquired in the Merger	\$ 13	\$ 347
Increase in ERCOT segment driven by higher realized prices	13	148
Increase in Retail segment driven by ERCOT margins	33	96
Change in Asset Closure segment driven by reduced operating results due to the retirement of facilities in first and second quarter of 2018	(20)	(11)
Corporate and Other	(5)	15
Total	\$ 34	\$ 595

Retail Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) Change	Six Months Ended June 30,		Favorable (Unfavorable) Change
	2019	2018		2019	2018	
Operating revenues:						
Revenues in ERCOT	\$ 1,091	\$ 1,111	\$ (20)	\$ 2,116	\$ 2,059	\$ 57
Revenues in Northeast/Midwest	315	336	(21)	663	336	327
Amortization expense	(10)	(15)	5	(19)	(27)	8
Other revenues	25	22	3	46	58	(12)
Total operating revenues	1,421	1,454	(33)	2,806	2,426	380
Fuel, purchased power costs and delivery fees:						
Purchases from affiliates	(689)	(716)	27	(1,360)	(1,061)	(299)
Unrealized net gains (losses) on hedging activities with affiliates	(803)	(463)	(340)	(966)	180	(1,146)
Delivery fees	(346)	(383)	37	(694)	(715)	21
Other costs	10	(4)	14	(4)	(5)	1
Total fuel, purchased power costs and delivery fees	(1,828)	(1,566)	(262)	(3,024)	(1,601)	(1,423)
Net income (loss)	\$ (585)	\$ (288)	\$ (297)	\$ (571)	\$ 483	\$ (1,054)
Adjusted EBITDA	\$ 293	\$ 260	\$ 33	\$ 550	\$ 454	\$ 96
Retail sales volumes (GWh):						
Retail electricity sales volumes:						
Sales volumes in ERCOT	10,693	10,861	(168)	20,476	20,053	423
Sales volumes in Northeast/Midwest	6,012	6,319	(307)	12,563	6,319	6,244
Total retail electricity sales volumes	16,705	17,180	(475)	33,039	26,372	6,667
Weather (North Texas average) - percent of normal (a):						
Cooling degree days	81.0%	117.0%		79.0%	117.0%	
Heating degree days	107.0%	209.0%		111.0%	106.0%	

(a) Weather data is obtained from Weatherbank, Inc. For the three and six months ended June 30, 2019, normal is defined as the average over the 10-year period from June 2009 to June 2018. For the three and six months ended June 30, 2018, normal is defined as the average over the 10-year period from June 2008 to June 2017.

Net loss increased by \$297 million to \$585 million and Adjusted EBITDA increased by \$33 million to \$293 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018 . Net income of \$483 million decreased by \$1.054 billion to a net loss of \$571 million and Adjusted EBITDA increased by \$96 million to \$550 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018 .

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
Favorable margins in ERCOT primarily due to favorable power prices	\$ 66	\$ 135
Favorable margins in Midwest/NE	11	12
Unfavorable weather in ERCOT	(38)	(42)
Other	(6)	(9)
Change in Adjusted EBITDA	\$ 33	\$ 96
Lower depreciation and amortization expenses driven by reduced amortization of the retail customer relationship	21	39
Unfavorable impact of unrealized net losses on hedging activities	(335)	(1,154)
Higher other expenses	(16)	(35)
Change in net income (loss)	\$ (297)	\$ (1,054)

ERCOT Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) Change	Six Months Ended June 30,		Favorable (Unfavorable) Change
	2019	2018		2019	2018	
Operating revenues:						
Wholesale electricity sales	\$ 228	\$ 254	\$ (26)	\$ 587	\$ 445	\$ 142
Sales to affiliates	392	405	(13)	750	751	(1)
Rolloff of unrealized net gains (losses) representing positions settled in the current period	22	131	(109)	(9)	167	(176)
Unrealized net gains (losses) from changes in fair value	393	102	291	515	(359)	874
Unrealized net gains (losses) on hedging activities with affiliates	635	435	200	781	(208)	989
Other revenues	1	—	1	1	(2)	3
Operating revenues	\$ 1,671	\$ 1,327	\$ 344	2,625	794	1,831
Fuel, purchased power costs and delivery fees:						
Fuel for generation facilities and purchased power costs	(268)	(300)	32	(587)	(555)	(32)
Unrealized (gains) losses from hedging activities	(3)	(2)	(1)	11	(3)	14
Ancillary and other costs	(28)	(35)	7	(57)	(69)	12
Fuel, purchased power costs and delivery fees	(299)	(337)	38	(633)	(627)	(6)
Net income (loss)	\$ 1,056	\$ 679	\$ 377	\$ 1,356	\$ (407)	\$ 1,763
Adjusted EBITDA	\$ 156	\$ 143	\$ 13	\$ 360	\$ 212	\$ 148
Production volumes (GWh):						
Nuclear facilities	4,060	5,279	(1,219)	8,678	10,547	(1,869)
Lignite and coal facilities	5,800	6,967	(1,167)	12,780	12,403	377
Natural gas facilities	8,939	8,030	909	17,330	14,421	2,909
Solar facilities	131	134	(3)	217	134	83
Capacity factors:						
Nuclear facilities	80.8%	105.1%		86.9%	105.6%	
Lignite and coal facilities	59.0%	71.8%		65.4%	68.8%	
CCGT facilities	49.1%	47.2%		49.0%	55.9%	
Market pricing:						
Average ERCOT North power price (\$/MWh)	\$ 25.09	\$ 27.76	\$ (2.67)	\$ 24.75	\$ 26.59	\$ (1.84)

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Net income increased by \$377 million to \$1.056 billion and Adjusted EBITDA increased by \$13 million to \$156 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018 . Net loss of \$407 million improved by \$1.763 billion to net income of \$1.356 billion and Adjusted EBITDA increased by \$148 million to \$360 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018 .

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
Favorable margins driven by higher realized power prices through hedging activities	\$ —	\$ 114
Unfavorable margin in the quarter due to decreased nuclear production driven by outage timing, partially offset by higher realized power prices	(5)	—
Lower selling, general and administrative expenses due to lower shared services costs	—	17
Insurance reimbursements for Comanche Peak	6	21
Impact of Forney outage in 2018	13	13
Other	(1)	(17)
Change in Adjusted EBITDA	\$ 13	\$ 148
Increased depreciation and amortization driven by facilities acquired in the Merger	(15)	(80)
Favorable impact of unrealized net gains on hedging activities	380	1,701
Other	(1)	(6)
Change in net income (loss)	\$ 377	\$ 1,763

PJM Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) \$ Change	Six Months Ended June 30,		Favorable (Unfavorable) \$ Change
	2019	2018		2019	2018	
Operating revenues:						
Energy	\$ 240	\$ 207	\$ 33	\$ 564	\$ 207	\$ 357
Capacity	53	119	(66)	120	119	1
Unrealized net gains on hedging activities	58	6	52	117	6	111
Sales to affiliates	209	168	41	431	168	263
Unrealized net gains (losses) on hedging activities with affiliates	126	(16)	142	159	(16)	175
Other revenues	—	1	(1)	—	1	(1)
Operating revenues	\$ 686	\$ 485	\$ 201	\$ 1,391	\$ 485	\$ 906
Fuel, purchased power costs and delivery fees:						
Fuel for generation facilities and purchased power costs	(244)	(243)	(1)	(560)	(243)	(317)
Fuel for generation facilities and purchased power costs from affiliates	—	(6)	6	—	(6)	6
Unrealized gains (losses) from hedging activities	(21)	11	(32)	(21)	11	(32)
Other costs	—	(1)	1	—	(1)	1
Fuel, purchased power costs and delivery fees	\$ (265)	\$ (239)	\$ (26)	\$ (581)	\$ (239)	\$ (342)
Net income	\$ 183	\$ 23	\$ 160	\$ 346	\$ 23	\$ 323
Adjusted EBITDA	\$ 167	\$ 154	\$ 13	\$ 368	\$ 154	\$ 214
Production volumes (GWh):	10,642	11,250	(608)	25,101	11,250	13,851
Capacity factors:						
CCGT facilities	59.9%	65.0%		67.1%	65.0%	
Coal facilities	35.6%	48.7%		50.6%	48.7%	
Weather - percent of normal (a):						
Cooling degree days	89.0%	116.0%		89.0%	116.0%	
Heating degree days	83.0%	117.0%		98.0%	117.0%	
Average Market On-Peak Power Prices (\$/MWh) (b):						
PJM West Hub	\$ 28.60	\$ 39.81		\$ 31.25	\$ 39.81	
AEP Dayton Hub	\$ 28.90	\$ 40.04		\$ 30.77	\$ 40.04	
Average natural gas price - TetcoM3 (\$/MMBtu) (c)						
	\$ 2.21	\$ 2.40		\$ 2.77	\$ 2.40	

(a) Reflects cooling degree days or heating degree days for the region based on Weather Services International (WSI) data.

(b) Reflects the average of day-ahead quoted prices for the periods presented and does not necessarily reflect prices we realized.

(c) Reflects the average of daily quoted prices for the periods presented and does not reflect costs incurred by us.

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Net income increased by \$160 million to \$183 million and Adjusted EBITDA increased by \$13 million to \$167 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018 . Net income increased by \$323 million to \$346 million and Adjusted EBITDA increased by \$214 million to \$368 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018 .

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
Favorable impact related to operations acquired in the Merger (a)	\$ —	\$ 201
Increase in generation revenue net of fuel	86	86
Decrease in capacity revenue	(66)	(66)
Increase in operating costs	(5)	(5)
Other	(2)	(2)
Adjusted EBITDA	\$ 13	\$ 214
Increase in depreciation and amortization	(9)	(140)
Unrealized net gains (losses) on hedging activities	162	254
Purchase accounting impacts	(3)	4
Other	(3)	(9)
Net income	\$ 160	\$ 323

(a) Impact related to operations acquired in the Merger are the combined results for the first quarter of 2019, for which there is no comparable period for 2018 due to the Merger date of April 9, 2018.

NY/NE Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) \$ Change	Six Months Ended June 30,		Favorable (Unfavorable) \$ Change
	2019	2018		2019	2018	
Operating revenues:						
Energy	\$ 124	\$ 116	\$ 8	\$ 375	\$ 116	\$ 259
Capacity	72	82	(10)	152	82	70
Unrealized net gains (losses) on hedging activities	25	(20)	45	26	(20)	46
Sales to affiliates	29	16	13	43	16	27
Unrealized net gains (losses) on hedging activities with affiliates	6	(4)	10	6	(4)	10
Other revenues	(2)	(3)	1	(3)	(3)	—
Operating revenues	\$ 254	\$ 187	\$ 67	\$ 599	\$ 187	\$ 412
Fuel, purchased power costs and delivery fees:						
Fuel for generation facilities and purchased power costs	(99)	(107)	8	(331)	(107)	(224)
Fuel for generation facilities and purchased power costs from affiliates	—	(2)	2	—	(2)	2
Unrealized gains from hedging activities	1	2	(1)	6	2	4
Other costs	(2)	(1)	(1)	(4)	(1)	(3)
Fuel, purchased power costs and delivery fees	\$ (100)	\$ (108)	\$ 8	\$ (329)	\$ (108)	\$ (221)
Net income	\$ 79	\$ (5)	\$ 84	\$ 100	\$ (5)	\$ 105
Adjusted EBITDA	\$ 91	\$ 74	\$ 17	\$ 177	\$ 74	\$ 103
Production volumes (GWh):	3,687	3,765	(78)	8,640	3,765	4,875
Capacity factors:						
CCGT facilities	35.7%	40.0%		42.1%	40.0%	
Weather - percent of normal (a):						
Cooling degree days	80.0%	103.0%		80.0%	103.0%	
Heating degree days	100.0%	116.0%		101.0%	116.0%	
Average Market On-Peak Power Prices (\$/MWh) (b):						
NYISO Zone C	\$ 21.80	\$ 31.03		\$ 27.80	\$ 31.03	
Massachusetts Hub	\$ 27.21	\$ 36.15		\$ 37.42	\$ 36.15	
Average natural gas price - Algonquin Citygates (\$/MMBtu) (c)						
	\$ 2.33	\$ 3.31		\$ 3.70	\$ 3.31	

(a) Reflects cooling degree days or heating degree days for the region based on Weather Services International (WSI) data.

(b) Reflects the average of day-ahead quoted prices for the periods presented and does not necessarily reflect prices we realized.

(c) Reflects the average of daily quoted prices for the periods presented and does not reflect costs incurred by us.

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Net loss of \$5 million improved by \$84 million to net income of \$79 million and Adjusted EBITDA increased by \$17 million to \$91 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018. Net loss of \$5 million improved by \$105 million to net income of \$100 million and Adjusted EBITDA increased by \$103 million to \$177 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018.

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
Favorable impact related to operations acquired in the Merger (a)	\$ —	\$ 86
Increase in generation revenue net of fuel	28	28
Decrease in capacity revenue	(10)	(10)
Other	(1)	(1)
Adjusted EBITDA	\$ 17	\$ 103
Decrease in depreciation and amortization	10	(55)
Unrealized net gains (losses) on hedging activities	54	60
Purchase accounting impacts	3	1
Transition and merger expenses	(1)	(2)
Other	1	(2)
Net income	\$ 84	\$ 105

(a) Impact related to operations acquired in the Merger are the combined results for the first quarter of 2019, for which there is no comparable period for 2018 due to the Merger date of April 9, 2018.

MISO Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) \$ Change	Six Months Ended June 30,		Favorable (Unfavorable) \$ Change
	2019	2018		2019	2018	
Operating revenues:						
Energy	\$ 113	\$ 81	\$ 32	\$ 302	\$ 81	\$ 221
Capacity	11	29	(18)	24	29	(5)
Unrealized net gains (losses) on hedging activities	31	(18)	49	24	(18)	42
Sales to affiliates	60	115	(55)	138	115	23
Unrealized net gains on hedging activities with affiliates	36	48	(12)	22	48	(26)
Other revenues	(5)	2	(7)	(10)	2	(12)
Operating revenues	\$ 246	\$ 257	\$ (11)	\$ 500	\$ 257	\$ 243
Fuel, purchased power costs and delivery fees:						
Fuel for generation facilities and purchased power costs	(116)	(134)	18	(272)	(134)	(138)
Fuel for generation facilities and purchased power costs from affiliates	—	—	—	—	—	—
Unrealized gains (losses) from hedging activities	(2)	2	(4)	4	2	2
Other costs	(2)	(1)	(1)	(4)	(1)	(3)
Fuel, purchased power costs and delivery fees	\$ (120)	\$ (133)	\$ 13	\$ (272)	\$ (133)	\$ (139)
Net income	\$ 35	\$ 31	\$ 4	\$ 46	\$ 31	\$ 15
Adjusted EBITDA	\$ 1	\$ 18	\$ (17)	\$ 48	\$ 18	\$ 30
Production volumes (GWh):	5,113	6,340	(1,227)	12,269	6,340	5,929
Capacity factors:						
Coal facilities	44.5%	60.6%		53.8%	60.6%	
Weather - percent of normal (a):						
Cooling degree days	86.0%	167.0%		86.0%	167.0%	
Heating degree days	93.0%	113.0%		99.0%	113.0%	
Average Market On-Peak Power Prices (\$/MWh) (b):						
Indiana Hub	\$ 29.69	\$ 38.91		\$ 31.81	\$ 38.91	
Northern Illinois Hub	\$ 26.73	\$ 31.76		\$ 28.31	\$ 31.76	

(a) Reflects cooling degree days or heating degree days for the region based on Weather Services International (WSI) data.

(b) Reflects the average of day-ahead quoted prices for the periods presented and does not necessarily reflect prices we realized.

Net income increased by \$4 million to \$35 million and Adjusted EBITDA decreased by \$17 million to \$1 million in the three months ended June 30, 2019 compared to the three months ended June 30, 2018. Net income increased by \$15 million to \$46 million and Adjusted EBITDA increased by \$30 million to \$48 million in the six months ended June 30, 2019 compared to the six months ended June 30, 2018.

	Three Months Ended June 30, 2019 Compared to 2018	Six Months Ended June 30, 2019 Compared to 2018
Favorable impact related to operations acquired in the Merger (a)	\$ —	\$ 47
Decrease in generation revenue net of fuel	(16)	(16)
Decrease in capacity revenue	(18)	(18)
Decrease in operating costs	22	22
Increase in selling, general and administrative expenses	(4)	(4)
Other	(1)	(1)
Adjusted EBITDA	\$ (17)	\$ 30
Increase in depreciation and amortization	—	(4)
Unrealized net gains (losses) on hedging activities	33	18
Purchase accounting impacts	4	—
Transition and merger expenses	(14)	(21)
Other	(2)	(8)
Net income	\$ 4	\$ 15

(a) Impact related to operations acquired in the Merger are the combined results for the first quarter of 2019, for which there is no comparable period for 2018 due to the Merger date of April 9, 2018.

Asset Closure Segment — Three and Six Months Ended June 30, 2019 Compared to Three and Six Months Ended June 30, 2018

	Three Months Ended June 30,		Favorable (Unfavorable) Change	Six Months Ended June 30,		Favorable (Unfavorable) Change
	2019	2018		2019	2018	
Operating revenues	\$ —	\$ 21	\$ (21)	\$ —	\$ 49	\$ (49)
Fuel, purchased power costs and delivery fees	—	(10)	10	—	(36)	36
Operating costs	(12)	(6)	(6)	(21)	(30)	9
Selling, general and administrative expenses	(4)	(4)	—	(9)	(5)	(4)
Operating loss	(16)	1	(17)	(30)	(22)	(8)
Other income	1	1	—	1	2	(1)
Net loss	\$ (15)	\$ 2	\$ (17)	\$ (29)	\$ (20)	\$ (9)
Adjusted EBITDA	\$ (15)	\$ 5	\$ (20)	\$ (28)	\$ (17)	\$ (11)
Production volumes (GWh)	—	445	(445)	—	1,515	(1,515)

Results for the Asset Closure segment reflect the retirement of the Stuart and Killen plants in May 2018 (acquired in the Merger), retirement of the Northeastern waste coal plant in October 2018 and the retirement of the Monticello, Sandow and Big Brown plants in January and February 2018 (see Note 4 to the Financial Statements). Operating costs for the six months ended June 30, 2019 included ongoing costs associated with closing these plants.

Energy-Related Commodity Contracts and Mark-to-Market Activities

The table below summarizes the changes in commodity contract assets and liabilities for the six months ended June 30, 2019 and 2018. The net change in these assets and liabilities, excluding "other activity" as described below, reflects \$703 million in unrealized net gains for the six months ended June 30, 2019 and \$199 million in unrealized net losses for the six months ended June 30, 2018, arising from mark-to-market accounting for positions in the commodity contract portfolio.

	Six Months Ended June 30,	
	2019	2018
Commodity contract net asset (liability) at beginning of period	\$ (850)	\$ (96)
Settlements/termination of positions (a)	(76)	165
Changes in fair value of positions in the portfolio (b)	779	(364)
Acquired commodity contracts in Merger (c)	—	(452)
Other activity (d)	(73)	80
Commodity contract net asset (liability) at end of period	<u>\$ (220)</u>	<u>\$ (667)</u>

- (a) Represents reversals of previously recognized unrealized gains and losses upon settlement/termination (offsets realized gains and losses recognized in the settlement period). The six months ended June 30, 2019 and 2018 include reversals of \$7 million and \$17 million, respectively, of previously recorded unrealized gains related to Vistra Energy beginning balances. The six months ended June 30, 2019 and 2018 also include reversals of \$13 million and \$23 million, respectively, of previously recorded unrealized losses related to commodity contracts acquired in the Merger. Excludes changes in fair value in the month the position settled as well as amounts related to positions entered into, and settled, in the same month.
- (b) Represents unrealized net gains (losses) recognized, reflecting the effect of changes in fair value. Excludes changes in fair value in the month the position settled as well as amounts related to positions entered into, and settled, in the same month.
- (c) Includes fair value of commodity contracts acquired on the Merger Date (see Note 2 to the Financial Statements).
- (d) Represents changes in fair value of positions due to receipt or payment of cash not reflected in unrealized gains or losses. Amounts are generally related to premiums related to options purchased or sold as well as certain margin deposits classified as settlement for certain transactions executed on the CME.

Maturity Table — The following table presents the net commodity contract liability arising from recognition of fair values at June 30, 2019, scheduled by the source of fair value and contractual settlement dates of the underlying positions.

Source of fair value	Maturity dates of unrealized commodity contract net liability at June 30, 2019				
	Less than 1 year	1-3 years	4-5 years	Excess of 5 years	Total
Prices actively quoted	\$ (138)	\$ 43	\$ (10)	\$ —	\$ (105)
Prices provided by other external sources	(45)	(74)	—	—	(119)
Prices based on models	60	4	(6)	(54)	4
Total	<u>\$ (123)</u>	<u>\$ (27)</u>	<u>\$ (16)</u>	<u>\$ (54)</u>	<u>\$ (220)</u>

FINANCIAL CONDITION***Operating Cash Flows***

Six Months Ended June 30, 2019 Compared to Six Months Ended June 30, 2018 — Cash provided by operating activities totaled \$882 million in the six months ended June 30, 2019 compared to cash used in operating activities of \$29 million in the six months ended June 30, 2018 . The favorable change of \$911 million was primarily driven by increased cash from operations reflecting operations acquired in the Merger and an increase in cash provided by margin deposits.

Depreciation and amortization expense reported as a reconciling adjustment in the statements of condensed consolidated cash flows exceeds the amount reported in the statements of condensed consolidated income (loss) by \$96 million and \$77 million for the six months ended June 30, 2019 and 2018 , respectively. The difference represented amortization of nuclear fuel, which is reported as fuel costs in the statements of consolidated income (loss) consistent with industry practice, and amortization of intangible net assets and liabilities that are reported in various other statements of condensed consolidated income (loss) line items including operating revenues and fuel and purchased power costs and delivery fees.

Financing Cash Flows

Cash used in financing activities totaled \$170 million and \$1.443 billion in the six months ended June 30, 2019 and 2018 , respectively. The decrease in cash used in financing activities was driven by:

- the issuance of \$4.6 billion principal amount of Vistra Operations senior secured and unsecured notes in 2019;
- redemption in 2018 of \$850 million principal amount of senior unsecured notes assumed in the Merger;
- the amendment to the Vistra Operations Credit Facilities in 2018, including the repayment of \$500 million of term loans,

partially offset by:

- cash tender offers in 2019 to purchase approximately \$2.0 billion of senior unsecured notes assumed in the Merger;
- repayment of approximately \$2.0 billion of term loans under the Vistra Operations Credit Facilities in 2019;
- \$100 million increase in debt tender offer and other financing fees in 2019 compared to 2018;
- \$394 million increase in cash paid for share repurchases in 2019 compared to 2018, and
- \$120 million of cash dividend paid to stockholders in the first quarter of 2019.

Investing Cash Flows

Cash used in investing activities totaled \$399 million in the six months ended June 30, 2019 compared to cash provided by investing activities of \$242 million in the six months ended June 30, 2018 . Capital expenditures (including LTSA prepayments, nuclear fuel purchases and development and growth expenditures) totaled \$303 million and \$202 million in the six months ended June 30, 2019 and 2018 , respectively. Cash used in investing activities in the six months ended June 30, 2019 also reflected net purchases of environmental allowances of \$107 million. Cash provided by investing activities in the six months ended June 30, 2018 also reflected \$445 million of cash acquired in the Merger (see Note 2 to the Financial Statements).

Debt Activity

See Note 11 to the Financial Statements for details of the Vistra Operations Credit Facilities and other long-term debt.

Available Liquidity

The following table summarizes changes in available liquidity for the six months ended June 30, 2019 :

	June 30, 2019	December 31, 2018	Change
Cash and cash equivalents	\$ 964	\$ 636	\$ 328
Vistra Operations Credit Facilities — Revolving Credit Facility	2,173	1,135	1,038
Total available liquidity	<u>\$ 3,137</u>	<u>\$ 1,771</u>	<u>\$ 1,366</u>

The \$1.366 billion increase in available liquidity in the six months ended June 30, 2019 was primarily driven by cash from operations, \$500 million of new Alternate LOC Facilities, \$225 million of additional available capacity under the Revolving Credit Facility and decreased letters of credit postings, partially offset by \$457 million in cash paid for share repurchases, \$303 million of capital expenditures (including nuclear fuel and development and growth expenditures), \$146 million in debt tender offer and other financing fees and \$120 million in dividends paid to shareholders.

Based upon our current internal financial forecasts, we believe that we will have sufficient liquidity to fund our anticipated cash requirements, including those related to our capital allocation initiatives, through at least the next 12 months. Our operational cash flows tend to be seasonal and weighted toward the second half of the year.

Liquidity Effects of Commodity Hedging and Trading Activities

We have entered into commodity hedging and trading transactions that require us to post collateral if the forward price of the underlying commodity moves such that the hedging or trading instrument we hold has declined in value. We use cash, letters of credit and other forms of credit support to satisfy such collateral posting obligations. See Note 11 to the Financial Statements for discussion of the Vistra Operations Credit Facilities.

Exchange cleared transactions typically require initial margin (*i.e.*, the upfront cash and/or letter of credit posted to take into account the size and maturity of the positions and credit quality) in addition to variation margin (*i.e.*, the daily cash margin posted to take into account changes in the value of the underlying commodity). The amount of initial margin required is generally defined by exchange rules. Clearing agents, however, typically have the right to request additional initial margin based on various factors, including market depth, volatility and credit quality, which may be in the form of cash, letters of credit, a guaranty or other forms as negotiated with the clearing agent. Cash collateral received from counterparties is either used for working capital and other business purposes, including reducing borrowings under credit facilities, or is required to be deposited in a separate account and restricted from being used for working capital and other corporate purposes. With respect to over-the-counter transactions, counterparties generally have the right to substitute letters of credit for such cash collateral. In such event, the cash collateral previously posted would be returned to such counterparties, which would reduce liquidity in the event the cash was not restricted.

At June 30, 2019, we received or posted cash and letters of credit for commodity hedging and trading activities as follows:

- \$253 million in cash has been posted with counterparties as compared to \$361 million posted at December 31, 2018 ;
- \$8 million in cash has been received from counterparties as compared to \$4 million received at December 31, 2018 ;
- \$896 million in letters of credit have been posted with counterparties as compared to \$1.185 billion posted at December 31, 2018, and
- \$5 million in letters of credit have been received from counterparties as compared to \$12 million received at December 31, 2018 .

Income Tax Payments

In the next 12 months, we do not expect to make federal income tax payments due to Vistra Energy's forecasted loss position in 2018. In February 2019, we received a refund of \$21 million related to Vistra Energy's 2017 federal tax return. We expect to make state income tax payments of approximately \$26 million and no TRA payments in the next 12 months. There were no federal income tax payments and \$30 million in state income tax payments for the six months ended June 30, 2019. There were \$58 million in income tax payments in the six months ended June 30, 2018.

Financial Covenants

The Credit Facilities Agreement includes a covenant, solely with respect to the Revolving Credit Facility and solely during a compliance period (which, in general, is applicable when the aggregate revolving borrowings and issued revolving letters of credit (in excess of \$300 million) exceed 30% of the revolving commitments), that requires the consolidated first lien net leverage ratio not exceed 4.25 to 1.00. Although the period ended June 30, 2019 was not a compliance period, we would have been in compliance with this financial covenant if it was required to be tested at such date.

See Note 11 to the Financial Statements for discussion of other covenants related to the Vistra Operations Credit Facilities.

Collateral Support Obligations

The RCT has rules in place to assure that parties can meet their mining reclamation obligations. In September 2016, the RCT agreed to a collateral bond of up to \$975 million to support Luminant's reclamation obligations. The collateral bond is effectively a first lien on all of Vistra Operations' assets (which ranks pari passu with the Vistra Operations Credit Facilities) that contractually enables the RCT to be paid (up to \$975 million) before the other first lien lenders in the event of a liquidation of our assets. Collateral support relates to land mined or being mined and not yet reclaimed as well as land for which permits have been obtained but mining activities have not yet begun and land already reclaimed but not released from regulatory obligations by the RCT, and includes cost contingency amounts.

The PUCT has rules in place to assure adequate creditworthiness of each REP, including the ability to return customer deposits, if necessary. Under these rules, at June 30, 2019, Vistra Energy has posted letters of credit in the amount of \$55 million with the PUCT, which is subject to adjustments.

The RTOs/ISOs we operate in have rules in place to assure adequate creditworthiness of parties that participate in the markets operated by those RTOs/ISOs. Under these rules, Vistra Energy has posted collateral support totaling \$225 million in the form of letters of credit, \$10 million in the form of a surety bond and \$1 million of cash at June 30, 2019 (which is subject to daily adjustments based on settlement activity with the RTOs/ISOs).

Material Cross Default/Acceleration Provisions

Certain of our contractual arrangements contain provisions that could result in an event of default if there was a failure under financing arrangements to meet payment terms or to observe covenants that could result in an acceleration of payments due. Such provisions are referred to as "cross default" or "cross acceleration" provisions.

A default by Vistra Operations or any of its restricted subsidiaries in respect of certain specified indebtedness in an aggregate amount in excess of \$300 million may result in a cross default under the Vistra Operations Credit Facilities. Such a default would allow the lenders to accelerate the maturity of outstanding balances (approximately \$3.8 billion at June 30, 2019) under such facilities.

Each of Vistra Operations' (or its subsidiaries') commodity hedging agreements and interest rate swap agreements that are secured with a lien on its assets on a pari passu basis with the Vistra Operations Credit Facilities lenders contains a cross default provision. An event of a default by Vistra Operations or any of its subsidiaries relating to indebtedness equal to or above a threshold defined in the applicable agreement that results in the acceleration of such debt, would give such counterparty under these hedging agreements the right to terminate its hedge or interest rate swap agreement with Vistra Operations (or its applicable subsidiary) and require all outstanding obligations under such agreement to be settled.

Under (i) the Vistra Operations' Senior Unsecured Indentures and the Senior Secured Indenture, a default under any document evidencing indebtedness for borrowed money by Vistra Operations or any Guarantor Subsidiary for failure to pay principal when due at final maturity or that results in the acceleration of such indebtedness in an aggregate amount of \$300 million or more, or (ii) with respect to the Vistra Energy Senior Unsecured Indentures (except with respect to the Consent Senior Notes), a default under any document evidencing indebtedness for borrowed money by Vistra Energy or any Guarantor Subsidiary for failure to pay principal when due at final maturity or that results in the acceleration of such indebtedness in an aggregate amount of \$100 million or more, may result in a cross default under the Vistra Operations Senior Unsecured Notes, the Senior Secured Notes, the Vistra Energy Senior Unsecured Notes (except with respect to the Consent Senior Notes), the Vistra Operations Credit Facilities, the Receivables Facility, the Alternate LOC Facilities, and other current or future documents evidencing any indebtedness for borrowed money by the applicable borrower or issuer, as the case may be, and the applicable Guarantor Subsidiaries party thereto.

Additionally, we enter into energy-related physical and financial contracts, the master forms of which contain provisions whereby an event of default or acceleration of settlement would occur if we were to default under an obligation in respect of borrowings in excess of thresholds, which may vary by contract.

The Receivables Facility contains a cross default provision. The cross default provision applies, among other instances, if Vistra Operations, the performance guarantor, fails to make a payment of principal or interest on any indebtedness that is outstanding in a principal amount of at least \$300 million, or, in the case of TXU Energy, the originator and servicer, in a principal amount of at least \$50 million, or if other events occur or circumstances exist under such indebtedness which give rise to a right of the debtholder to accelerate such indebtedness, or if such indebtedness becomes due before its stated maturity. If this cross-default provision is triggered, a termination event under the Receivables Facility would occur and the Receivables Facility may be terminated.

Under the Alternate LOC Facilities, a default under any document evidencing indebtedness for borrowed money by Vistra Operations or any Guarantor Subsidiary for failure to pay principal when due at final maturity or that results in the acceleration of such indebtedness in an aggregate amount of \$300 million or more, may result in a termination of the Alternate LOC Facilities.

Guarantees

See Note 13 to the Financial Statements for discussion of guarantees.

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any off-balance sheet arrangements.

COMMITMENTS AND CONTINGENCIES

See Note 13 to the Financial Statements for discussion of commitments and contingencies.

CHANGES IN ACCOUNTING STANDARDS

See Note 1 to the Financial Statements for discussion of changes in accounting standards.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk that in the normal course of business we may experience a loss in value due to changes in market conditions that affect economic factors such as commodity prices, interest rates and counterparty credit. Our exposure to market risk is affected by several factors, including the size, duration and composition of our energy and financial portfolio, as well as the volatility and liquidity of markets.

Risk Oversight

We manage the commodity price, counterparty credit and commodity-related operational risk related to the competitive energy business within limitations established by senior management and in accordance with overall risk management policies. Interest rate risk is managed centrally by our treasury function. Market risks are monitored by risk management groups that operate independently of the wholesale commercial operations, utilizing defined practices and analytical methodologies. These techniques measure the risk of change in value of the portfolio of contracts and the hypothetical effect on this value from changes in market conditions and include, but are not limited to, position reporting and review, Value at Risk (VaR) methodologies and stress test scenarios. Key risk control activities include, but are not limited to, transaction review and approval (including credit review), operational and market risk measurement, transaction authority oversight, validation of transaction capture, market price validation and reporting, and portfolio valuation and reporting.

Commodity Price Risk

Our business is subject to the inherent risks of market fluctuations in the price of electricity, natural gas and other energy-related products it markets or purchases. We actively manage the portfolio of generation assets, fuel supply and retail sales load to mitigate the near-term impacts of these risks on results of operations. Similar to other participants in the market, we cannot fully manage the long-term value impact of structural declines or increases in natural gas and power prices.

In managing energy price risk, we enter into a variety of market transactions including, but not limited to, short- and long-term contracts for physical delivery, exchange-traded and over-the-counter financial contracts and bilateral contracts with customers. Activities include hedging, the structuring of long-term contractual arrangements and proprietary trading. We continuously monitor the valuation of identified risks and adjust positions based on current market conditions.

VaR Methodology — A VaR methodology is used to measure the amount of market risk that exists within the portfolio under a variety of market conditions. The resultant VaR produces an estimate of a portfolio's potential for loss given a specified confidence level and considers, among other things, market movements utilizing standard statistical techniques given historical and projected market prices and volatilities.

Parametric processes are used to calculate VaR and are considered by management to be the most effective way to estimate changes in a portfolio's value based on assumed market conditions for liquid markets. The use of this method requires a number of key assumptions, such as use of (i) an assumed confidence level, (ii) an assumed holding period (*i.e.* , the time necessary for management action, such as to liquidate positions) and (iii) historical estimates of volatility and correlation data. The table below details a VaR measure related to various portfolios of contracts.

VaR for Underlying Generation Assets and Energy-Related Contracts — This measurement estimates the potential loss in value, due to changes in market conditions, of all underlying generation assets and contracts, based on a 95% confidence level and an assumed holding period of 60 days for a forward period through December 2020 for the six months ended June 30, 2019 and December 2019 for the year ended December 31, 2018 .

	Six Months Ended June 30, 2019	Year Ended December 31, 2018
Month-end average VaR:	\$ 368	\$ 182
Month-end high VaR:	\$ 520	\$ 267
Month-end low VaR:	\$ 199	\$ 65

The increase in the month-end high VaR risk measure in 2019 is primarily driven by an increase in volatility in ERCOT during the year.

Interest Rate Risk

As of June 30, 2019 , the potential reduction of annual pretax earnings over the next twelve months due to a one percentage-point (100 basis points) increase in floating interest rates on long-term debt totaled approximately \$5 million , taking into account the interest rate swaps discussed in Note 11 to Financial Statements.

Credit Risk

Credit risk relates to the risk of loss associated with nonperformance by counterparties. We minimize credit risk by evaluating potential counterparties, monitoring ongoing counterparty risk and assessing overall portfolio risk. This includes review of counterparty financial condition, current and potential credit exposures, credit rating and other quantitative and qualitative credit criteria. We also employ certain risk mitigation practices, including utilization of standardized master agreements that provide for netting and setoff rights, as well as credit enhancements such as margin deposits and customer deposits, letters of credit, parental guarantees and surety bonds. See Note 16 to the Financial Statements for further discussion of this exposure.

Bankruptcies - We are party to (i) certain gas transportation agreements with PG&E and (ii) a long-term renewable power purchase agreement with PG&E in connection with the Moss Landing battery storage project, which was approved by the California Public Utilities Commission in November 2018. PG&E filed for Chapter 11 bankruptcy protection in January 2019.

As of June 30, 2019 , we had no outstanding accounts receivable from PG&E and accordingly, we have not recorded a reserve related to the pre-petition receivables. While our assumptions and conclusions may change, we could have future impairment losses, or, specifically with respect to the gas transportation agreements, be required to seek alternative, higher-cost fuel transportation methods, if any of the terms of the contracts are not honored by PG&E or the contracts are rejected through the bankruptcy process.

Credit Exposure — Our gross credit exposure (excluding collateral impacts) associated with retail and wholesale trade accounts receivable and net derivative assets arising from commodity contracts and hedging and trading activities totaled \$1.131 billion at June 30, 2019 .

At June 30, 2019 , Retail segment credit exposure totaled \$742 million , including \$730 million of trade accounts receivable and \$12 million related to derivative assets. Cash deposits and letters of credit held as collateral for these receivables totaled \$35 million , resulting in a net exposure of \$707 million . We believe the risk of material loss (after consideration of bad debt allowances) from nonperformance by these customers is unlikely based upon historical experience. Allowances for uncollectible accounts receivable are established for the potential loss from nonpayment by these customers based on historical experience, market or operational conditions and changes in the financial condition of large business customers.

At June 30, 2019 , aggregate ERCOT, PJM, NY/NE and MISO segments credit exposure totaled \$389 million including \$235 million related to derivative assets and \$154 million of trade accounts receivable, after taking into account master netting agreement provisions but excluding collateral impacts.

Including collateral posted to us by counterparties, our net ERCOT, PJM, NY/NE and MISO segments exposure was \$381 million , substantially all of which is with investment grade customers as seen in the following table that presents the distribution of credit exposure at June 30, 2019 . Credit collateral includes cash and letters of credit but excludes other credit enhancements such as guarantees or liens on assets.

	Exposure Before Credit Collateral	Credit Collateral	Net Exposure
Investment grade	\$ 347	\$ —	\$ 347
Below investment grade or no rating	42	8	34
Totals	<u>\$ 389</u>	<u>\$ 8</u>	<u>\$ 381</u>

Significant (10% or greater) concentration of credit exposure exists with two counterparties, which represented an aggregate \$162 million , or 43% , of the total net exposure. We view exposure to these counterparties to be within an acceptable level of risk tolerance due to the counterparties' credit ratings, each of which is rated as investment grade, the counterparties' market role and deemed creditworthiness and the importance of our business relationship with the counterparties. An event of default by one or more counterparties could subsequently result in termination-related settlement payments that reduce available liquidity if amounts such as margin deposits are owed to the counterparties or delays in receipts of expected settlements owed to us.

Contracts classified as "normal" purchase or sale and non-derivative contractual commitments are not marked-to-market in the financial statements and are excluded from the detail above. Such contractual commitments may contain pricing that is favorable considering current market conditions and therefore represent economic risk if the counterparties do not perform.

FORWARD-LOOKING STATEMENTS

This report and other presentations made by us contain "forward-looking statements." All statements, other than statements of historical facts, that are included in this report, or made in presentations, in response to questions or otherwise, that address activities, events or developments that may occur in the future, including (without limitation) such matters as activities related to our financial or operational projections, capital allocation, capital expenditures, liquidity, dividend policy, business strategy, competitive strengths, goals, future acquisitions or dispositions, development or operation of power generation assets, market and industry developments and the growth of our businesses and operations (often, but not always, through the use of words or phrases such as "intends," "plans," "will likely," "unlikely," "expected," "anticipated," "estimated," "should," "may," "projection," "target," "goal," "objective" and "outlook"), are forward-looking statements. Although we believe that in making any such forward-looking statement our expectations are based on reasonable assumptions, any such forward-looking statement involves uncertainties and risks and is qualified in its entirety by reference to the discussion under Part II, Item 1A. *Risk Factors* and Part I, Item 2, *Management's Discussion and Analysis of Financial Condition and Results of Operations* in this quarterly report on Form 10-Q and the following important factors, among others, that could cause our actual results to differ materially from those projected in or implied by such forward-looking statements:

- the actions and decisions of judicial and regulatory authorities;
- prohibitions and other restrictions on our operations due to the terms of our agreements;
- prevailing federal, state and local governmental policies and regulatory actions, including those of the legislatures and other government actions of states in which we operate, the U.S. Congress, the FERC, the North American Electric Reliability Corporation, the Texas Reliability Entity, Inc., the public utility commissions of states and locales in which we operate, CAISO, ERCOT, ISO-NE, MISO, NYISO, PJM, the RCT, the NRC, the EPA, the environmental regulatory bodies of states in which we operate, the U.S. Mine Safety and Health Administration and the U.S. Commodity Futures Trading Commission, with respect to, among other things:
 - allowed prices;
 - industry, market and rate structure;
 - purchased power and recovery of investments;
 - operations of nuclear generation facilities;
 - operations of fossil-fueled generation facilities;
 - operations of mines;
 - acquisition and disposal of assets and facilities;
 - development, construction and operation of facilities;
 - decommissioning costs;
 - present or prospective wholesale and retail competition;
 - changes in federal, state and local tax laws, rates and policies, including additional regulation, interpretations, amendments, or technical corrections to The Tax Cuts and Jobs Act of 2017;
 - changes in and compliance with environmental and safety laws and policies, including National Ambient Air Quality Standards, the Cross-State Air Pollution Rule, the Mercury and Air Toxics Standard, regional haze program implementation and greenhouse gas and other climate change initiatives, and
 - clearing over-the-counter derivatives through exchanges and posting of cash collateral therewith;
- expectations regarding, or impacts of, environmental matters, including costs of compliance, availability and adequacy of emission credits, and the impact of ongoing proceedings and potential regulations or changes to current regulations, including those relating to climate change, air emissions, cooling water intake structures, coal combustion byproducts, and other laws and regulations that we are, or could become, subject to, which could increase our costs, result in an impairment of our assets, cause us to limit or terminate the operation of certain of our facilities, or otherwise have a negative financial effect;
- legal and administrative proceedings and settlements;
- general industry trends;
- economic conditions, including the impact of an economic downturn;
- weather conditions, including drought and limitations on access to water, and other natural phenomena, and acts of sabotage, wars or terrorist or cybersecurity threats or activities;
- our ability to collect trade receivables from counterparties;
- our ability to attract and retain profitable customers;
- our ability to profitably serve our customers;
- restrictions on competitive retail pricing;
- changes in wholesale electricity prices or energy commodity prices, including the price of natural gas;
- changes in prices of transportation of natural gas, coal, fuel oil and other refined products;
- sufficiency of, access to, and costs associated with coal, fuel oil, and natural gas inventories and transportation and storage thereof;

- changes in the ability of vendors to provide or deliver commodities as needed;
- beliefs and assumptions about the benefits of state- or federal-based subsidies to our market competition, and the corresponding impacts on us, including if such subsidies are disproportionately available to our competitors;
- the effects of, or changes to, market design and the power and capacity procurement processes in the markets in which we operate;
- changes in market heat rates in the CAISO, ERCOT, ISO-NE, MISO, NYISO and PJM electricity markets;
- our ability to effectively hedge against unfavorable commodity prices, including the price of natural gas, market heat rates and interest rates;
- population growth or decline, or changes in market supply or demand and demographic patterns, particularly in ERCOT, MISO and PJM;
- our ability to mitigate forced outage risk, including managing risk associated with Capacity Performance in PJM and performance incentives in ISO-NE;
- efforts to identify opportunities to reduce congestion and improve busbar power prices;
- access to adequate transmission facilities to meet changing demands;
- changes in interest rates, commodity prices, rates of inflation or foreign exchange rates;
- changes in operating expenses, liquidity needs and capital expenditures;
- commercial bank market and capital market conditions and the potential impact of disruptions in U.S. and international credit markets;
- access to capital, the attractiveness of the cost and other terms of such capital and the success of financing and refinancing efforts, including availability of funds in capital markets;
- our ability to maintain prudent financial leverage;
- our ability to generate sufficient cash flow to make principal and interest payments in respect of, or refinance, our debt obligations;
- our ability to implement our growth strategy, including the completion and integration of mergers, acquisitions and/or joint venture activity and identification and completion of sales and divestitures activity;
- competition for new energy development and other business opportunities;
- inability of various counterparties to meet their obligations with respect to our financial instruments;
- counterparties' collateral demands and other factors affecting our liquidity position and financial condition;
- changes in technology (including large scale electricity storage) used by and services offered by us;
- changes in electricity transmission that allow additional power generation to compete with our generation assets;
- our ability to attract and retain qualified employees;
- significant changes in our relationship with our employees, including the availability of qualified personnel, and the potential adverse effects if labor disputes or grievances were to occur;
- changes in assumptions used to estimate costs of providing employee benefits, including medical and dental benefits, pension and other postretirement employee benefits, and future funding requirements related thereto, including joint and several liability exposure under ERISA;
- hazards customary to the industry and the possibility that we may not have adequate insurance to cover losses resulting from such hazards;
- the impact of our obligations under the TRA;
- our ability to optimize our assets through targeted investment in cost-effective technology enhancements and operations performance initiatives;
- our ability to effectively and efficiently plan, prepare for and execute expected asset retirements and reclamation obligations and the impacts thereof;
- our ability to successfully complete the integration of the businesses of Vistra Energy and Dynegy and our ability to successfully capture the full amount of projected synergies relating to the Merger;
- our ability to successfully integrate the Crius business and our ability to successfully capture the full amount of projected operational and financial synergies relating to the Crius Transaction, and
- actions by credit rating agencies.

Any forward-looking statement speaks only at the date on which it is made, and except as may be required by law, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which it is made or to reflect the occurrence of unanticipated events or circumstances. New factors emerge from time to time, and it is not possible for us to predict them. In addition, we may be unable to assess the impact of any such event or condition or the extent to which any such event or condition, or combination of events or conditions, may cause results to differ materially from those contained in or implied by any forward-looking statement. As such, you should not unduly rely on such forward-looking statements.

INDUSTRY AND MARKET INFORMATION

Certain industry and market data and other statistical information used throughout this report are based on independent industry publications, government publications, reports by market research firms or other published independent sources, including certain data published by CAISO, ERCOT, ISO-NE, MISO, NYISO, PJM, the environmental regulatory bodies of states in which we operate and NYMEX. We did not commission any of these publications, reports or other sources. Some data is also based on good faith estimates, which are derived from our review of internal surveys, as well as the independent sources listed above. Industry publications, reports and other sources generally state that they have obtained information from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information. While we believe that each of these studies, publications, reports and other sources is reliable, we have not independently investigated or verified the information contained or referred to therein and make no representation as to the accuracy or completeness of such information. Forecasts are particularly likely to be inaccurate, especially over long periods of time, and we do not know what assumptions were used in preparing such forecasts. Statements regarding industry and market data and other statistical information used throughout this report involve risks and uncertainties and are subject to change based on various factors.

Item 4. CONTROLS AND PROCEDURES

An evaluation was performed under the supervision and with the participation of our management, including the principal executive officer and principal financial officer, of the effectiveness of the design and operation of the disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15a-15(e) of the Exchange Act) in effect at the end of the current period included in this quarterly report on Form 10-Q. Based on the evaluation performed, our principal executive officer and principal financial officer concluded that the disclosure controls and procedures were effective. During the fiscal quarter covered by this quarterly report on Form 10-Q, there have been no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(e) and 15a-15(e) of the Exchange Act) that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION**Item 1. LEGAL PROCEEDINGS**

Reference is made to the discussion in Note 13 to the Financial Statements regarding legal proceedings.

Item 1A. RISK FACTORS

There have been no material changes to the risk factors discussed in Part I, Item 1A. *Risk Factors* in our annual report on Form 10-K for the year ended December 31, 2018. Our business operations could also be affected by additional factors that are not presently known to us or that we currently consider to be immaterial to our operations.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table provides information about our repurchase of equity securities that are registered by us pursuant to Section 12 of the Exchange Act during the quarter ended June 30, 2019.

	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program	Maximum Dollar Amount of Shares that may yet be Purchased under the Program (in millions)
April 1 - April 30, 2019	1,711,887	\$ 26.17	1,711,887	\$ 691
May 1 - May 31, 2019	3,352,842	\$ 24.92	3,352,842	\$ 608
June 1 - June 30, 2019	3,493,983	\$ 23.81	3,493,983	\$ 524
For the quarter ended June 30, 2019	8,558,712	\$ 24.72	8,558,712	\$ 524

In June 2018, we announced that the Board had authorized a share repurchase program under which up to \$500 million of our outstanding stock may be purchased, and in November 2018, we announced that the Board had authorized an incremental share repurchase program under which up to \$1.250 billion of our outstanding stock may be purchased, resulting in an aggregate \$1.750 billion share repurchase program. We intend to implement the program opportunistically from time to time in 2019 and 2020.

Shares of the Company's stock will be repurchased from time to time in open market transactions at prevailing market prices, in privately negotiated transactions, pursuant to plans complying with Rule 10b5-1 and 10b-18 under the Exchange Act of 1934 or by other means in accordance with federal securities laws. The actual timing, number and value of shares repurchased under the Program will be determined at our discretion and will depend on a number of factors, including the market price of our stock, general market and economic conditions, applicable legal requirements and compliance with the terms of our debt agreements.

Item 3. DEFAULTS UPON SENIOR SECURITIES

None.

Item 4. MINE SAFETY DISCLOSURES

Vistra Energy currently owns and operates, or is in the process of reclaiming, 12 surface lignite coal mines in Texas to provide fuel for its electricity generation facilities. Vistra Energy also owns or leases, and is in the process of reclaiming, two waste-to-energy surface facilities in Pennsylvania. These mining operations are regulated by the U.S. Mine Safety and Health Administration (MSHA) under the Federal Mine Safety and Health Act of 1977, as amended (the Mine Act), as well as other federal and state regulatory agencies such as the RCT and Office of Surface Mining. The MSHA inspects U.S. mines, including Vistra Energy's mines, on a regular basis, and if it believes a violation of the Mine Act or any health or safety standard or other regulation has occurred, it may issue a citation or order, generally accompanied by a proposed fine or assessment. Such citations and orders can be contested and appealed, which often results in a reduction of the severity and amount of fines and assessments and sometimes results in dismissal. Disclosure of MSHA citations, orders and proposed assessments are provided in Exhibit 95.1 to this quarterly report on Form 10-Q.

Item 5. OTHER INFORMATION

None

Item 6. EXHIBITS**(a) Exhibits filed or furnished as part of Part II are:**

<u>Exhibits</u>	<u>Previously Filed With File Number*</u>	<u>As Exhibit</u>	
(4)	Instruments Defining the Rights of Security Holders, Including Indentures		
4.1	001-38086 Form 8-K (filed June 17, 2019)	4.1	— Indenture, dated as of June 11, 2019, between Vistra Operations Company LLC, as Issuer, the and Wilmington Trust, National Association, as Trustee.
4.2	001-38086 Form 8-K (filed June 17, 2019)	4.2	— Supplemental Indenture for 3.55% Senior Secured Notes due 2024 and 4.30% Senior Secured Notes Due 2029, dated as of June 11, 2019, among Vistra Operations Company LLC, as Issuer, the Subsidiary Guarantors (as defined therein), and Wilmington Trust, National Association, as Trustee.
4.3	001-38086 Form 8-K (filed June 17, 2019)	4.3	— Form of Rule 144A Global Security for 3.55% Senior Notes due 2024 (included in Exhibit 4.2).
4.4	001-38086 Form 8-K (filed June 17, 2019)	4.4	— Form of Rule 144A Global Security for 4.30% Senior Notes due 2029 (included in Exhibit 4.2).
4.5	001-38086 Form 8-K (filed June 17, 2019)	4.5	— Form of Regulation S Global Security for 3.55% Senior Notes due 2024 (included in Exhibit 4.2).
4.6	001-38086 Form 8-K (filed June 17, 2019)	4.6	— Form of Regulation S Global Security for 4.30% Senior Notes due 2029 (included in Exhibit 4.2).
4.7	001-38086 Form 8-K (filed June 24, 2019)	4.1	— Indenture for 5.00% Senior Notes due 2027, dated as of June 21, 2019, among Vistra Operations Company LLC, as Issuer, the Subsidiary Guarantors (as defined therein), and Wilmington Trust, National Association, as Trustee.
4.8	001-38086 Form 8-	4.2	— Form of Rule 144A Global Security for 5.00% Senior Notes due 2027 (included in Exhibit 4.1).

	K (filed June 24, 2019)		
4.9	001-38086 Form 8-K (filed June 24, 2019)	4.3	— Form of Regulation S Global Security for 5.00% Senior Notes due 2027 (included in Exhibit 4.1).
4.10	001-38086 Form 8-K (filed April 5, 2019)	4.1	— First Amendment to Purchase and Sale Agreement, dated as of April 1, 2019, among TXU Energy Retail Company LLC, Dynegy Energy Services, LLC, and Dynegy Energy Services (East), LLC, each as an originator, and TXU Energy Receivables Company LLC, as purchaser
4.11	001-38086 Form 8-K (filed April 5, 2019)	4.2	— First Amendment to Receivables Purchase Agreement, dated as of April 1, 2019, among TXU Energy Receivables Company LLC, as seller, TXU Energy Retail Company LLC, as servicer, Vistra Operations Company LLC, as performance guarantor, certain purchaser agents and purchasers named therein and Credit Agricole Corporate and Investment Bank, as administrator
4.12	**		— Second Amendment to Purchase and Sale Agreement, dated as of June 3, 2019, among TXU Energy Retail Company LLC, Dynegy Energy Services, LLC, and Dynegy Energy Services (East), LLC, each as an originator, and TXU Energy Receivables Company LLC, as purchaser

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<u>Exhibits</u>	<u>Previously Filed With File Number*</u>	<u>As Exhibit</u>	
4.13	**	—	Second Amendment to Receivables Purchase Agreement, dated as of June 3, 2019, among TXU Energy Receivables Company LLC, as seller, TXU Energy Retail Company LLC, as servicer, Vistra Operations Company LLC, as performance guarantor, certain purchaser agents and purchasers named therein and Credit Agricole Corporate and Investment Bank, as administrator
4.14	001-38086 Form 8-K (filed July 19, 2019)	4.1	— Third Amendment to Purchase and Sale Agreement, dated as of July 15, 2019, among TXU Energy Retail Company LLC, Dynegy Energy Services, LLC, and Dynegy Energy Services (East), LLC, each as an originator, and TXU Energy Receivables Company LLC, as purchaser
4.15	001-38086 Form 8-K (filed July 19, 2019)	4.2	— Third Amendment to Receivables Purchase Agreement, dated as of July 15, 2019, among TXU Energy Receivables Company LLC, as seller, TXU Energy Retail Company LLC, as servicer, Vistra Operations Company LLC, as performance guarantor, certain purchaser agents and purchasers named therein and Credit Agricole Corporate and Investment Bank, as administrator
(10)	Material Contracts		
10.1	001-38086 Form 8-K (filed May 29, 2019)	10.1	— Ninth Amendment to Credit Agreement, dated May 29, 2019, by and among Vistra Operations Company LLC, Vistra Intermediate Company LLC, the other Credit Parties (as defined in the Vistra Operations Credit Agreement) party thereto, Sun Trust Bank, as incremental Revolving Loan Lender, and Credit Suisse AG, Cayman Island Branch, as Administrative Agent and Collateral Agent
10.2	001-38086 Form 8-K (filed June 7, 2019)	10.1	— Purchase Agreement, dated June 4, 2019, by and among Vistra Operations Company LLC and Citigroup Global Markets Inc., on behalf of itself and the several Initial Purchasers named in Schedule I to the Purchase Agreement
10.3	001-38086 Form 8-K (filed June 7, 2019)	10.2	— Purchase Agreement, dated June 6, 2019, by and among Vistra Operations Company LLC and Goldman Sachs & Co. LLC, on and behalf of itself and the several Initial Purchasers named in Schedule I to the Purchase Agreement
10.4	001-38086 Form 8-K (filed May 23, 2019)	10.1	— Amended and Restated 2016 Omnibus Incentive Plan, effective as of May 20, 2019
10.5	001-38086 Form 10-Q (Quarter ended March 31, 2019) (filed	10.5	— Amended and Restated Employment Agreement, dated May 1, 2019, between the Company and James A. Burke

<u>Exhibits</u>	<u>Previously Filed With File Number*</u>	<u>As Exhibit</u>	
32.2	***		— Certification of David A. Campbell, principal financial officer of Vistra Energy Corp., pursuant to U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(95)			Mine Safety Disclosures
95.1	**		— Mine Safety Disclosures
			XBRL Data Files
101.INS			— The XBRL Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	**		— XBRL Taxonomy Extension Schema Document
101.CAL	**		— XBRL Taxonomy Extension Calculation Document
101.DEF	**		— XBRL Taxonomy Extension Definition Document
101.LAB	**		— XBRL Taxonomy Extension Labels Document
101.PRE	**		— XBRL Taxonomy Extension Presentation Document

* Incorporated herein by reference
** Filed herewith
*** Furnished herewith

SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT

This SECOND AMENDMENT (this “ **Amendment** ”), dated as of June 3, 2019, is among TXU ENERGY RETAIL COMPANY LLC, a Texas limited liability company (“ **TXU** ”), as Originator (in such capacity, together with its successors and permitted assigns in such capacity, the “ **Servicer** ”), TXU ENERGY RECEIVABLES COMPANY LLC, a Delaware limited liability company, as buyer (the “ **Company** ”), Dynegy Energy Services, LLC, as an Originator, Dynegy Energy Services (East), LLC, as an Originator, and as agreed to and acknowledged by CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, a national banking association (“ **CACIB** ”), as Administrator (in such capacity, together with its successors and permitted assigns in such capacity, the “ **Administrator** ”). Capitalized terms used but not otherwise defined herein have the respective meanings assigned thereto in the Agreement (as defined below).

RECITALS

WHEREAS , TXU, as Originator and the Company are parties to that certain Purchase and Sale Agreement, dated as of August 21, 2018 (as amended, restated, supplemented or otherwise modified through the date hereof, the “ **Agreement** ”).

WHEREAS , concurrently herewith, the Company, the Servicer, the Performance Guarantor, the Purchasers and Purchaser Agents party thereto and the Administrator are entering into that certain Second Amendment to Receivables Purchase Agreement, dated as of the date hereof (the “ **RPA Amendment** ”).

WHEREAS , the parties hereto desire to amend the Agreement as hereinafter set forth.

NOW, THEREFORE , for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

SECTION 1. **Amendments to the Agreement**. The Agreement is hereby amended as follows:

(a) **Section 6.1(e)** of the Agreement is amended and restated in its entirety as follows:

(e) *Deposits to Collection Accounts* . Such Originator hereby directs the Servicer to, or to cause each Payment Processor to, instruct, all Obligor to make payments of all Sold Receivables to one or more Collection Accounts or Lock-Boxes or Payment Processors. Such Originator hereby directs the Servicer to instruct all Payment Processors to remit all payments of all Sold Receivables to one or more Collection Accounts or Lock-Boxes. If the Servicer fails to, or fails to cause each Payment Processor to, so instruct an Obligor, or if an Obligor or a Payment Processor fails to so deliver payments to a Collection Account or Lock-Box, such Originator will use all

reasonable efforts to, or to cause each Payment Processor to, cause such Obligor or Payment Processor to deliver subsequent payments on Sold Receivables to a Collection Account or Lock-Box and (ii) deposit, or cause to be deposited, any Collections received by it, into a Collection Account subject to a Lock-Box Agreement not later than two Business Days after receipt thereof. Such Originator shall only consent to the addition of a Payment Processor to those listed on Schedule III to the Receivables Purchase Agreement if the Administrator has received prior written notice of such addition. Notwithstanding the foregoing requirements of this Section 6.1(e), until June 28, 2019, Collections on Receivables originated by Dynegy Energy Services, LLC may be received into the Dynegy Account but only so long as all available Collections in such accounts are swept on a daily basis to the Concentration Account.

(b) Section 7.2(a) of the Agreement is amended and restated in its entirety as follows:

(a) *Collection Procedures*. Each Originator agrees to (i) direct, or cause each Payment Processor to direct, its respective Obligors to make payments of Receivables sold, contributed or otherwise conveyed or purported to be conveyed by it hereunder to one or more Collection Accounts or Lock-Boxes or Payment Processors and (ii) direct each Payment Processor to remit all payments of Receivables sold, contributed or otherwise conveyed or purported to be conveyed by it hereunder to one or more Collection Accounts or Lock-Boxes. Each Originator further agrees to transfer any Collections of Sold Receivables that it receives directly to a Collection Account or the Concentration Account within two (2) Business Days of receipt thereof, and agrees that all such Collections shall be deemed to be received in trust for the Company and the Administrator (as the Company's assignee). Notwithstanding the foregoing requirements of this Section 7.2(a), until June 28, 2019, Collections on Receivables originated by Dynegy Energy Services, LLC may be received into the Dynegy Account but only so long as all available Collections in such accounts are swept on a daily basis to the Concentration Account.

SECTION 2. Conditions to Effectiveness.

This Amendment shall become effective as of the date hereof, provided that neither the Facility Termination Date nor a Termination Event or Unmatured Termination Event has occurred and subject to (i) the payment of any fees, costs and expenses due and payable to each Purchaser Agent under the Fee Letter and (ii) the condition precedent that the Administrator shall have received each of the following, each duly executed and dated as of the date hereof (or such other date satisfactory to the Administrator), in form and substance satisfactory to the Administrator:

- (a) counterparts of this Amendment (whether by facsimile or otherwise) executed by each of the parties hereto;
- (b) counterparts of the RPA Amendment (whether by facsimile or otherwise) executed by each of the respective parties thereto; and
- (c) such other documents, agreements, certificates, opinions and instruments as the Administrator may reasonably request prior to delivery by Administrator of an executed counterpart of this Amendment.

SECTION 3. Representations and Warranties.

Each of the Seller and the Servicer, as applicable, hereby represents and warrants to each Purchaser, each Purchaser Agent and the Administrator as follows:

- (a) Representations and Warranties. The representations and warranties contained in Article V of the Agreement are true and correct as of the date hereof (unless stated to relate solely to an earlier date, in which case such representations or warranties were true and correct as of such earlier date).
- (b) Enforceability. The execution and delivery by each of the Seller and the Servicer of this Amendment, and the performance of each of its obligations under this Amendment and the Agreement, as amended hereby, are within each of its organizational powers and have been duly authorized by all necessary action on each of its parts. This Amendment and the Agreement, as amended hereby, are each of the Seller's and the Servicer's valid and legally binding obligations, enforceable in accordance with its terms.
- (c) No Default. Immediately after giving effect to this Amendment and the transactions contemplated hereby, no Termination Event or Unmatured Termination Event exists or shall exist and the Purchased Interest shall not exceed 100%.

SECTION 4. Effect of Amendment; Ratification. Except as specifically amended hereby, the Agreement is hereby ratified and confirmed in all respects, and all of its provisions shall remain in full force and effect. After this Amendment becomes effective, all references in the Agreement (or in any other Transaction Document) to "the Purchase and Sale Agreement", "this Agreement", "hereof", "herein", or words of similar effect, in each case referring to the Agreement, shall be deemed to be references to the Agreement as amended hereby. This Amendment shall not be deemed to expressly or impliedly waive, amend, or supplement any provision of the Agreement other than as specifically set forth herein.

SECTION 5. Counterparts. This Amendment may be executed in any number of counterparts (including in PDF or similar electronic format by facsimile or e-mail transmission), each of which, when so executed, shall be deemed to be an original, and all of which, when taken together, shall constitute one and the same agreement.

SECTION 6. Governing Law. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK (WITHOUT REFERENCE TO ITS CONFLICTS OF LAW PROVISIONS (OTHER THAN

§5-1401 AND §5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW, WHICH SHALL APPLY HERETO).

SECTION 7. Section Headings. The various headings of this Amendment are inserted for convenience only and shall not affect the meaning or interpretation of this Amendment or the Agreement or any provision hereof or thereof.

SECTION 8. Successors and Assigns. This Amendment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

SECTION 9. Severability. If any one or more of the agreements, provisions or terms of this Amendment shall for any reason whatsoever be held invalid or unenforceable, then such agreements, provisions or terms shall be deemed severable from the remaining agreements, provisions and terms of this Amendment and shall in no way affect the validity or enforceability of the provisions of this Amendment or the Agreement.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date first written above.

TXU ENERGY RETAIL COMPANY LLC , as an Originator

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

DYNEGY ENERGY SERVICES (EAST), LLC , as an Originator

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

DYNEGY ENERGY SERVICES (EAST), LLC , as an Originator

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

TXU ENERGY RECEIVABLES COMPANY LLC

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

[Signature Page to Second Amendment to PSA]

ACKNOWLEDGED AND AGREED:

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK , as Administrator

By: /s/ Michael Regan

Name: Michael Regan

Title: Managing Director

By: /s/ Roger Klepper

Name: Roger Klepper

Title: Managing Director

[Signature Page to Second Amendment to PSA]

SECOND AMENDMENT TO RECEIVABLES PURCHASE AGREEMENT

This SECOND AMENDMENT (this “**Amendment**”), dated as of June 3, 2019, is among TXU ENERGY RECEIVABLES COMPANY LLC, a Delaware limited liability company, as seller (the “**Seller**”), TXU ENERGY RETAIL COMPANY LLC, a Texas limited liability company (“**TXU**”), as servicer (in such capacity, together with its successors and permitted assigns in such capacity, the “**Servicer**”), CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, a national banking association (“**CACIB**”), as Administrator (in such capacity, together with its successors and permitted assigns in such capacity, the “**Administrator**”), the PURCHASERS and PURCHASER AGENTS from time to time party to the Agreement (as defined below) and VISTRA OPERATIONS COMPANY LLC, a Delaware limited liability company (“**Vistra**”), as Performance Guarantor. Capitalized terms used but not otherwise defined herein have the respective meanings assigned thereto in the Agreement (as defined below).

RECITALS

WHEREAS, the parties hereto are parties to the Receivables Purchase Agreement, dated as of August 21, 2018 (as amended, restated, supplemented or otherwise modified through the date hereof, the “**Agreement**”).

WHEREAS, the parties hereto desire to amend the Agreement as hereinafter set forth.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

SECTION 1. Amendments to the Agreement. The Agreement is hereby amended as follows:

(a) Section 4.3(a) of the Agreement is amended and restated in its entirety as follows:

(a) On or prior to the Closing Date, the Seller shall have delivered to the Administrator a Lock-Box Agreement in respect of each Collection Account and the Concentration Account identified on *Schedule II* as of the Closing Date and delivered an original counterpart thereof to the Administrator. The Lock-Box Agreements for the Collection Accounts and the Concentration Account shall provide the Administrator with “control” within the meaning of Section 9-104 of the UCC over such Collection Accounts and Concentration Account. The Lock-Box Banks for the Collection Accounts (other than any Collection Account receiving Collections (either directly or by transfer directly from a related Lock-Box) on a Receivable originated by Dynegy Energy Services, LLC or Dynegy Energy Services (East), LLC) shall be directed by the Servicer to sweep all available funds therein on a daily basis to the Concentration

Account. The Seller shall not, and shall not permit any other Person to, attempt to terminate such automatic sweep feature or attempt to close the Concentration Account or any Collection Account unless the Collections directed to such Collection Account are redirected to another Collection Account subject to a Lock-Box Agreement. Notwithstanding the foregoing requirements of this Section 4.3(a), until June 28, 2019 (the “Collection Account Grace Period End Date”), Collections on Receivables originated by Dynegy Energy Services, LLC may be received into the Dynegy Account but only so long as all available Collections in such accounts are swept on a daily basis to the Concentration Account.

SECTION 2. Conditions to Effectiveness.

This Amendment shall become effective as of the date hereof, provided that neither the Facility Termination Date nor a Termination Event or Unmatured Termination Event has occurred and subject to (i) the payment of any fees, costs and expenses due and payable to each Purchaser Agent under the Fee Letter and (ii) the condition precedent that the Administrator shall have received each of the following, each duly executed and dated as of the date hereof (or such other date satisfactory to the Administrator), in form and substance satisfactory to the Administrator:

- (a) counterparts of this Amendment (whether by facsimile or otherwise) executed by each of the parties hereto; and
- (b) such other documents, agreements, certificates, opinions and instruments as the Administrator may reasonably request prior to delivery by Administrator of an executed counterpart of this Amendment.

SECTION 3. Representations and Warranties.

Each of the Seller and the Servicer, as applicable, hereby represents and warrants to each Purchaser, each Purchaser Agent and the Administrator as follows:

- (a) Representations and Warranties. The representations and warranties contained in Exhibit III of the Agreement are true and correct as of the date hereof (unless stated to relate solely to an earlier date, in which case such representations or warranties were true and correct as of such earlier date).
 - (b) Enforceability. The execution and delivery by each of the Seller and the Servicer of this Amendment, and the performance of each of its obligations under this Amendment and the Agreement, as amended hereby, are within each of its organizational powers and have been duly authorized by all necessary action on each of its parts. This Amendment and the Agreement, as amended hereby, are each of the Seller’s and the Servicer’s valid and legally binding obligations, enforceable in accordance with its terms.
 - (c) No Default. Immediately after giving effect to this Amendment and the transactions contemplated hereby, no Termination Event or Unmatured Termination Event exists or shall exist and the Purchased Interest shall not exceed 100%.
-

SECTION 4. Effect of Amendment; Ratification. Except as specifically amended hereby, the Agreement is hereby ratified and confirmed in all respects, and all of its provisions shall remain in full force and effect. After this Amendment becomes effective, all references in the Agreement (or in any other Transaction Document) to “the Receivables Purchase Agreement”, “this Agreement”, “hereof”, “herein”, or words of similar effect, in each case referring to the Agreement, shall be deemed to be references to the Agreement as amended hereby. This Amendment shall not be deemed to expressly or impliedly waive, amend, or supplement any provision of the Agreement other than as specifically set forth herein.

SECTION 5. Reaffirmation of Performance Guaranty. After giving effect to this Amendment and each of the other transactions contemplated hereby, all of the provisions of the Performance Guaranty shall remain in full force and effect and Vistra hereby ratifies and affirms the Performance Guaranty and acknowledges that the Performance Guaranty has continued and shall continue in full force and effect in accordance with its terms.

SECTION 6. Counterparts. This Amendment may be executed in any number of counterparts (including in PDF or similar electronic format by facsimile or e-mail transmission), each of which, when so executed, shall be deemed to be an original, and all of which, when taken together, shall constitute one and the same agreement.

SECTION 7. Governing Law. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK (WITHOUT REFERENCE TO ITS CONFLICTS OF LAW PROVISIONS (OTHER THAN §5-1401 AND §5-1402 OF THE NEW YORK GENERAL OBLIGATIONS LAW, WHICH SHALL APPLY HERETO)).

SECTION 8. Section Headings. The various headings of this Amendment are inserted for convenience only and shall not affect the meaning or interpretation of this Amendment or the Agreement or any provision hereof or thereof.

SECTION 9. Successors and Assigns. This Amendment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

SECTION 10. Severability. If any one or more of the agreements, provisions or terms of this Amendment shall for any reason whatsoever be held invalid or unenforceable, then such agreements, provisions or terms shall be deemed severable from the remaining agreements, provisions and terms of this Amendment and shall in no way affect the validity or enforceability of the provisions of this Amendment or the Agreement.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date first written above.

TXU ENERGY RECEIVABLES COMPANY LLC ,
as Seller

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

TXU ENERGY RETAIL COMPANY LLC , in its individual capacity and as Servicer

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

VISTRA OPERATIONS COMPANY LLC , as Performance Guarantor

By: /s/ Kristopher E. Moldovan
Name: Kristopher E. Moldovan
Title: Senior Vice President and Treasurer

[Signature Page to Second Amendment to RPA]

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK , as Administrator

By: /s/ Michael Regan
Name: Michael Regan
Title: Managing Director

By: /s/ Roger Klepper
Name: Roger Klepper
Title: Managing Director

[Signature Page to Second Amendment to RPA]

CACIB PURCHASER GROUP:

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK , as Purchaser
Agent

By: /s/ Michael Regan
Name: Michael Regan
Title: Managing Director

By: /s/ Roger Klepper
Name: Roger Klepper
Title: Managing Director

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK , as Committed
Purchaser

By: /s/ Michael Regan
Name: Michael Regan
Title: Managing Director

By: /s/ Roger Klepper
Name: Roger Klepper
Title: Managing Director

ATLANTIC ASSET SECURITIZATION LLC ,
as Conduit Purchaser

By: /s/ Michael Regan
Name: Michael Regan
Title: Managing Director

By: /s/ Roger Klepper
Name: Roger Klepper
Title: Managing Director

[Signature Page to Second Amendment to RPA]

RBC PURCHASER GROUP:

ROYAL BANK OF CANADA , as Purchaser Agent

By: /s/ Veronica L. Gallagher _____

Name: Veronica L. Gallagher

Title: Authorized Signatory

ROYAL BANK OF CANADA , as Committed Purchaser

By: /s/ Veronica L. Gallagher _____

Name: Veronica L. Gallagher

Title: Authorized Signatory

By: /s/ Stephen A. Kuklinski _____

Name: Stephen A. Kuklinski

Title: Authorized Signatory

THUNDER BAY FUNDING, LLC ,

as Conduit Purchaser

By: /s/ Veronica L. Gallagher _____

Name: Veronica L. Gallagher

Title: Authorized Signatory

[Signature Page to Second Amendment to RPA]

**CERTIFICATION OF PRESIDENT AND CHIEF EXECUTIVE OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Curtis A. Morgan, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Vistra Energy Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 2, 2019

/s/ Curtis A. Morgan

Curtis A. Morgan

President and Chief Executive Officer

(Principal Executive Officer)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, David A. Campbell, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Vistra Energy Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 2, 2019

/s/ David A. Campbell

David A. Campbell

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

**CERTIFICATION OF PRESIDENT AND CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Vistra Energy Corp. (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Curtis A. Morgan, President and Chief Executive Officer of the Company, hereby certify as of the date hereof, solely for the purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Date: August 2, 2019

/s/ Curtis A. Morgan

Curtis A. Morgan

President and Chief Executive Officer

(Principal Executive Officer)

The foregoing certification is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and is not to be incorporated by reference into any filing of Vistra Energy Corp. under Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language of such filing.

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Vistra Energy Corp. (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David A. Campbell, Executive Vice President and Chief Financial Officer of the Company, hereby certify as of the date hereof, solely for the purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Date: August 2, 2019

/s/ David A. Campbell

David A. Campbell
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

The foregoing certification is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), and is not to be incorporated by reference into any filing of Vistra Energy Corp. under Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, regardless of any general incorporation language of such filing.

Mine Safety Disclosures

Safety is a top priority in all our businesses, and accordingly, it is a key component of our focus on operational excellence, our employee performance reviews and employee compensation. Our health and safety program objectives are to prevent workplace accidents and ensure that all employees return home safely and comply with all regulations.

Vistra Energy currently owns and operates, or is in the process of reclaiming, 12 surface lignite coal mines in Texas to provide fuel for its electricity generation facilities. Vistra Energy also owns or leases, and is in the process of reclaiming, two waste-to-energy surface facilities in Pennsylvania. These mining operations are regulated by the U.S. Mine Safety and Health Administration (MSHA) under the Federal Mine Safety and Health Act of 1977, as amended (the Mine Act), as well as other regulatory agencies such as the RCT. The MSHA inspects U.S. mines, including Vistra Energy's, on a regular basis and if it believes a violation of the Mine Act or any health or safety standard or other regulation has occurred, it may issue a citation or order, generally accompanied by a proposed fine or assessment. Such citations and orders can be contested and appealed to the Federal Mine Safety and Health Review Commission (FMSHRC), which often results in a reduction of the severity and amount of fines and assessments and sometimes results in dismissal. The number of citations, orders and proposed assessments vary depending on the size of the mine as well as other factors.

Disclosures related to specific mines pursuant to Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K sourced from data documented at July 11, 2019 in the MSHA Data Retrieval System for the three months ended June 30, 2019 (except pending legal actions, which are at June 30, 2019), are as follows:

Mine (a)	Section 104 S and S Citations (b)	Section 104(b) Orders	Section 104(d) Citations and Orders	Section 110(b) (2) Violations	Section 107(a) Orders	Total Dollar Value of MSHA Assessments Proposed (c)	Total Number of Mining Related Fatalities	Received Notice of Pattern of Violations Under Section 104(e)	Received Notice of Potential to Have Pattern Under Section 104(e)	Legal Actions Pending at Last Day of Period (d)	Legal Actions Initiated During Period	Legal Actions Resolved During Period
Kosse	—	—	—	—	—	—	—	—	—	2	—	—
Liberty	2	—	—	—	—	—	—	—	—	—	—	1
Northeastern Power Cogeneration Facility	—	—	—	—	—	—	—	—	—	—	—	1

(a) Excludes mines for which there were no applicable events.

(b) Includes MSHA citations for mandatory health or safety standards that could significantly and substantially contribute to a serious injury if left unabated.

(c) Total value in thousands of dollars for proposed assessments received from MSHA for all citations and orders issued in the three months ended June 30, 2019, including but not limited to Sections 104, 107 and 110 citations and orders that are not required to be reported.

(d) Pending actions before the FMSHRC involving a coal or other mine. Both are contests of proposed penalties.