
UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the Fiscal Year Ended September 30, 2016

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

For the Transition Period from _____ to _____
Commission File Number 1-3880

National Fuel Gas Company

(Exact name of registrant as specified in its charter)

New Jersey

(State or other jurisdiction of
incorporation or organization)

13-1086010

(I.R.S. Employer
Identification No.)

6363 Main Street

Williamsville, New York

(Address of principal executive offices)

14221

(Zip Code)

(716) 857-7000

Registrant's telephone number, including area code

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

<u>Title of Each Class</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, par value \$1.00 per share, and Common Stock Purchase Rights	New York Stock Exchange

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

None

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

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

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

(Do not check if a smaller reporting company)

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

The aggregate market value of the voting stock held by nonaffiliates of the registrant amounted to \$4,142,887,000 as of March 31, 2016.

Common Stock, par value \$1.00 per share, outstanding as of October 31, 2016: 85,161,752 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for its 2017 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days of September 30, 2016, are incorporated by reference into Part III of this report.

Glossary of Terms

Frequently used abbreviations, acronyms, or terms used in this report:

National Fuel Gas Companies

Company The Registrant, the Registrant and its subsidiaries or the Registrant's subsidiaries as appropriate in the context of the disclosure

Distribution Corporation National Fuel Gas Distribution Corporation

Empire Empire Pipeline, Inc.

Midstream Corporation National Fuel Gas Midstream Corporation

National Fuel National Fuel Gas Company

NFR National Fuel Resources, Inc.

Registrant National Fuel Gas Company

Seneca Seneca Resources Corporation

Supply Corporation National Fuel Gas Supply Corporation

Regulatory Agencies

CFTC Commodity Futures Trading Commission

EPA United States Environmental Protection Agency

FASB Financial Accounting Standards Board

FERC Federal Energy Regulatory Commission

NYDEC New York State Department of Environmental Conservation

NYPSC State of New York Public Service Commission

PaDEP Pennsylvania Department of Environmental Protection

PaPUC Pennsylvania Public Utility Commission

PHMSA Pipeline and Hazardous Materials Safety Administration

SEC Securities and Exchange Commission

Other

Bbl Barrel (of oil)

Bcf Billion cubic feet (of natural gas)

Bcfe (or Mcfe) — represents Bcf (or Mcf) Equivalent The total heat value (Btu) of natural gas and oil expressed as a volume of natural gas. The Company uses a conversion formula of 1 barrel of oil = 6 Mcf of natural gas.

Btu British thermal unit; the amount of heat needed to raise the temperature of one pound of water one degree Fahrenheit.

Capital expenditure Represents additions to property, plant, and equipment, or the amount of money a company spends to buy capital assets or upgrade its existing capital assets.

Cashout revenues A cash resolution of a gas imbalance whereby a customer pays Supply Corporation and/or Empire for gas the customer receives in excess of amounts delivered into Supply Corporation's and Empire's systems by the customer's shipper.

Degree day A measure of the coldness of the weather experienced, based on the extent to which the daily average temperature falls below a reference temperature, usually 65 degrees Fahrenheit.

Derivative A financial instrument or other contract, the terms of which include an underlying variable (a price, interest rate, index rate, exchange rate, or other variable) and a notional amount (number of units, barrels, cubic feet, etc.). The terms also permit for the instrument or contract to be settled net and no initial net investment is required to enter into the financial instrument or contract. Examples include futures contracts, options, no cost collars and swaps.

Development costs Costs incurred to obtain access to proved oil and gas reserves and to provide facilities for extracting, treating, gathering and storing the oil and gas.

Development well A well drilled to a known producing formation in a previously discovered field.

Dodd-Frank Act Dodd-Frank Wall Street Reform and Consumer Protection Act.

Dth Decatherm; one Dth of natural gas has a heating value of 1,000,000 British thermal units, approximately equal to the heating value of 1 Mcf of natural gas.

Exchange Act Securities Exchange Act of 1934, as amended

Expenditures for long-lived assets Includes capital expenditures, stock acquisitions and/or investments in partnerships.

Exploitation Development of a field, including the location, drilling, completion and equipment of wells necessary to produce the commercially recoverable oil and gas in the field.

Exploration costs Costs incurred in identifying areas that may warrant examination, as well as costs incurred in examining specific areas, including drilling exploratory wells.

FERC 7(c) application An application to the FERC under Section 7(c) of the federal Natural Gas Act for authority to construct, operate (and provide services through) facilities to transport or store natural gas in interstate commerce.

Exploratory well A well drilled in unproven or semi-proven territory for the purpose of ascertaining the presence underground of a commercial hydrocarbon deposit.

Firm transportation and/or storage The transportation and/or storage service that a supplier of such service is obligated by contract to provide and for which the customer is obligated to pay whether or not the service is utilized.

GAAP Accounting principles generally accepted in the United States of America

Goodwill An intangible asset representing the difference between the fair value of a company and the price at which a company is purchased.

Hedging A method of minimizing the impact of price, interest rate, and/or foreign currency exchange rate changes, often times through the use of derivative financial instruments.

Hub Location where pipelines intersect enabling the trading, transportation, storage, exchange, lending and borrowing of natural gas.

ICE Intercontinental Exchange. An exchange which maintains a futures market for crude oil and natural gas.

Interruptible transportation and/or storage The transportation and/or storage service that, in accordance with contractual arrangements, can be interrupted by the supplier of such service, and for which the customer does not pay unless utilized.

LDC Local distribution company

LIBOR London Interbank Offered Rate

LIFO Last-in, first-out

Marcellus Shale A Middle Devonian-age geological shale formation that is present nearly a mile or more below the surface in the Appalachian region of the United States, including much of Pennsylvania and southern New York.

Mbbl Thousand barrels (of oil)

Mcf Thousand cubic feet (of natural gas)

MD&A Management's Discussion and Analysis of Financial Condition and Results of Operations

MDth Thousand decatherms (of natural gas)

MMBtu Million British thermal units (heating value of one dekatherm of natural gas)

MMcf Million cubic feet (of natural gas)

MMcfe Million cubic feet equivalent

NEPA National Environmental Policy Act of 1969, as amended

NGA The Natural Gas Act of 1938, as amended; the federal law regulating interstate natural gas pipeline and storage companies, among other things, codified beginning at 15 U.S.C. Section 717.

NYMEX New York Mercantile Exchange. An exchange which maintains a futures market for crude oil and natural gas.

Open Season A bidding procedure used by pipelines to allocate firm transportation or storage capacity among prospective shippers, in which all bids submitted during a defined time period are evaluated as if they had been submitted simultaneously.

PCB Polychlorinated Biphenyl

Precedent Agreement An agreement between a pipeline company and a potential customer to sign a service agreement after specified events (called “conditions precedent”) happen, usually within a specified time.

Proved developed reserves Reserves that can be expected to be recovered through existing wells with existing equipment and operating methods.

Proved undeveloped (PUD) reserves Reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required to make those reserves productive.

PRP Potentially responsible party

Reliable technology Technology that a company may use to establish reserves estimates and categories that has been proven empirically to lead to correct conclusions.

Reserves The unproduced but recoverable oil and/or gas in place in a formation which has been proven by production.

Restructuring Generally referring to partial “deregulation” of the pipeline and/or utility industry by statutory or regulatory process. Restructuring of federally regulated natural gas pipelines resulted in the separation (or “unbundling”) of gas commodity service from transportation service for wholesale and large-volume retail markets. State restructuring programs attempt to extend the same process to retail mass markets.

Revenue decoupling mechanism A rate mechanism which adjusts customer rates to render a utility financially indifferent to throughput decreases resulting from conservation.

S&P Standard & Poor’s Ratings Service

SAR Stock appreciation right

Service Agreement The binding agreement by which the pipeline company agrees to provide service and the shipper agrees to pay for the service.

Spot gas purchases The purchase of natural gas on a short-term basis.

Stock acquisitions Investments in corporations.

Unbundled service A service that has been separated from other services, with rates charged that reflect only the cost of the separated service.

VEBA Voluntary Employees’ Beneficiary Association

WNC Weather normalization clause; a clause in utility rates which adjusts customer rates to allow a utility to recover its normal operating costs calculated at normal temperatures. If temperatures during the measured period are warmer than normal, customer rates are adjusted upward in order to recover projected operating costs. If temperatures during the measured period are colder than normal, customer rates are adjusted downward so that only the projected operating costs will be recovered.

CONTENTS

		Page
	Part I	
ITEM 1	<u>BUSINESS</u>	<u>6</u>
	<u>THE COMPANY AND ITS SUBSIDIARIES</u>	<u>6</u>
	<u>RATES AND REGULATION</u>	<u>7</u>
	<u>THE EXPLORATION AND PRODUCTION SEGMENT</u>	<u>7</u>
	<u>THE PIPELINE AND STORAGE SEGMENT</u>	<u>7</u>
	<u>THE GATHERING SEGMENT</u>	<u>8</u>
	<u>THE UTILITY SEGMENT</u>	<u>8</u>
	<u>THE ENERGY MARKETING SEGMENT</u>	<u>8</u>
	<u>ALL OTHER CATEGORY AND CORPORATE OPERATIONS</u>	<u>8</u>
	<u>SOURCES AND AVAILABILITY OF RAW MATERIALS</u>	<u>9</u>
	<u>COMPETITION</u>	<u>9</u>
	<u>SEASONALITY</u>	<u>11</u>
	<u>CAPITAL EXPENDITURES</u>	<u>11</u>
	<u>ENVIRONMENTAL MATTERS</u>	<u>11</u>
	<u>MISCELLANEOUS</u>	<u>11</u>
	<u>EXECUTIVE OFFICERS OF THE COMPANY</u>	<u>12</u>
ITEM 1A	<u>RISK FACTORS</u>	<u>13</u>
ITEM 1B	<u>UNRESOLVED STAFF COMMENTS</u>	<u>22</u>
ITEM 2	<u>PROPERTIES</u>	<u>22</u>
	<u>GENERAL INFORMATION ON FACILITIES</u>	<u>22</u>
	<u>EXPLORATION AND PRODUCTION ACTIVITIES</u>	<u>23</u>
ITEM 3	<u>LEGAL PROCEEDINGS</u>	<u>27</u>
ITEM 4	<u>MINE SAFETY DISCLOSURES</u>	<u>27</u>
	Part II	
ITEM 5	<u>MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>27</u>
ITEM 6	<u>SELECTED FINANCIAL DATA</u>	<u>29</u>
ITEM 7	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>30</u>
ITEM 7A	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>62</u>
ITEM 8	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>63</u>
ITEM 9	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>121</u>
ITEM 9A	<u>CONTROLS AND PROCEDURES</u>	<u>121</u>
ITEM 9B	<u>OTHER INFORMATION</u>	<u>122</u>

Part III

ITEM 10	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>122</u>
ITEM 11	<u>EXECUTIVE COMPENSATION</u>	<u>122</u>
ITEM 12	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>122</u>
ITEM 13	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>123</u>
ITEM 14	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>123</u>

Part IV

ITEM 15	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>123</u>
	<u>SIGNATURES</u>	<u>130</u>

PART I

Item 1 *Business*

The Company and its Subsidiaries

National Fuel Gas Company (the Registrant), incorporated in 1902, is a holding company organized under the laws of the State of New Jersey. Except as otherwise indicated below, the Registrant owns directly or indirectly all of the outstanding securities of its subsidiaries. Reference to “the Company” in this report means the Registrant, the Registrant and its subsidiaries or the Registrant’s subsidiaries as appropriate in the context of the disclosure. Also, all references to a certain year in this report relate to the Company’s fiscal year ended September 30 of that year unless otherwise noted.

The Company is a diversified energy company engaged principally in the production, gathering, transportation, distribution and marketing of natural gas. The Company operates an integrated business, with assets centered in western New York and Pennsylvania, being used for, and benefiting from, the production and transportation of natural gas from the Marcellus Shale basin. The common geographic footprint of the Company’s subsidiaries enables them to share management, labor, facilities and support services across various businesses and pursue coordinated projects designed to produce and transport natural gas from the Marcellus Shale to markets in Canada and the eastern United States. The Company also develops and produces oil reserves, primarily in California. The Company reports financial results for five business segments: Exploration and Production, Pipeline and Storage, Gathering, Utility, and Energy Marketing.

1. The Exploration and Production segment operations are carried out by Seneca Resources Corporation (Seneca), a Pennsylvania corporation. Seneca is engaged in the exploration for, and the development and production of, natural gas and oil reserves in California and in the Appalachian region of the United States. At September 30, 2016, Seneca had U.S. proved developed and undeveloped reserves of 29,009 Mbbl of oil and 1,674,575 MMcf of natural gas.

2. The Pipeline and Storage segment operations are carried out by National Fuel Gas Supply Corporation (Supply Corporation), a Pennsylvania corporation, and Empire Pipeline, Inc. (Empire), a New York corporation. Supply Corporation provides interstate natural gas transportation and storage services for affiliated and nonaffiliated companies through (i) an integrated gas pipeline system extending from southwestern Pennsylvania to the New York-Canadian border at the Niagara River and eastward to Ellisburg and Leidy, Pennsylvania, and (ii) 27 underground natural gas storage fields owned and operated by Supply Corporation as well as four other underground natural gas storage fields owned and operated jointly with other interstate gas pipeline companies. Empire, an interstate pipeline company, transports natural gas for Distribution Corporation and for other utilities, large industrial customers and power producers in New York State. Empire owns the Empire Pipeline, a 249-mile pipeline system comprising three principal components: a 157-mile pipeline that extends from the United States/Canadian border at the Niagara River near Buffalo, New York to near Syracuse, New York; a 77-mile pipeline extension from near Rochester, New York to an interconnection with the unaffiliated Millennium Pipeline near Corning, New York (the Empire Connector), and a 15-mile pipeline extension from Corning into Tioga County, Pennsylvania (the Tioga County Extension).

3. The Gathering segment operations are carried out by wholly-owned subsidiaries of National Fuel Gas Midstream Corporation (Midstream Corporation), a Pennsylvania corporation. Through these subsidiaries, Midstream Corporation builds, owns and operates natural gas processing and pipeline gathering facilities in the Appalachian region.

4. The Utility segment operations are carried out by National Fuel Gas Distribution Corporation (Distribution Corporation), a New York corporation. Distribution Corporation sells natural gas or provides natural gas transportation services to approximately 742,235 customers through a local distribution system located in western New York and northwestern Pennsylvania. The principal metropolitan areas served by Distribution Corporation include Buffalo, Niagara Falls and Jamestown, New York and Erie and Sharon, Pennsylvania.

5. The Energy Marketing segment operations are carried out by National Fuel Resources, Inc. (NFR), a New York corporation, which markets natural gas to industrial, wholesale, commercial, public authority and residential

customers primarily in western and central New York and northwestern Pennsylvania, offering competitively priced natural gas for its customers.

Financial information about each of the Company's business segments can be found in Item 7, MD&A and also in Item 8 at Note J — Business Segment Information.

The following business is not included in any of the five reported business segments:

- Seneca's Northeast Division, which markets timber from Appalachian land holdings. At September 30, 2016, the Company owned approximately 93,000 acres of timber property and managed approximately 3,000 additional acres of timber cutting rights.

No single customer, or group of customers under common control, accounted for more than 10% of the Company's consolidated revenues in 2016.

Rates and Regulation

The Utility segment's rates, services and other matters are regulated by the NYPSC with respect to services provided within New York and by the PaPUC with respect to services provided within Pennsylvania. For additional discussion of the Utility segment's rates and regulation, see Item 7, MD&A under the heading "Rate and Regulatory Matters" and Item 8 at Note A — Summary of Significant Accounting Policies (Regulatory Mechanisms) and Note C — Regulatory Matters.

The Pipeline and Storage segment's rates, services and other matters are regulated by the FERC. For additional discussion of the Pipeline and Storage segment's rates and regulation, see Item 7, MD&A under the heading "Rate and Regulatory Matters" and Item 8 at Note A — Summary of Significant Accounting Policies (Regulatory Mechanisms) and Note C — Regulatory Matters.

The discussion under Item 8 at Note C — Regulatory Matters includes a description of the regulatory assets and liabilities reflected on the Company's Consolidated Balance Sheets in accordance with applicable accounting standards. To the extent that the criteria set forth in such accounting standards are not met by the operations of the Utility segment or the Pipeline and Storage segment, as the case may be, the related regulatory assets and liabilities would be eliminated from the Company's Consolidated Balance Sheets and such accounting treatment would be discontinued.

In addition, the Company and its subsidiaries are subject to the same federal, state and local regulations on various subjects, including environmental matters, to which other companies doing similar business in the same locations are subject.

The Exploration and Production Segment

The Exploration and Production segment incurred a net loss in 2016. This represented 155.6% of the Company's 2016 net loss.

Additional discussion of the Exploration and Production segment appears below in this Item 1 under the headings "Sources and Availability of Raw Materials" and "Competition: The Exploration and Production Segment," in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

The Pipeline and Storage Segment

The Pipeline and Storage segment contributed net income in 2016. This net income partially offset the Company's 2016 net loss by 26.3%.

Supply Corporation's firm transportation capacity is subject to change as the market identifies different transportation paths and receipt/delivery point combinations. At the end of fiscal year 2016, Supply Corporation had firm transportation service agreements for approximately 3,207 MDth per day (contracted transportation capacity). The Utility segment accounts for approximately 1,124 MDth per day or 35% of contracted transportation capacity, and the Energy Marketing and Exploration and Production segments represent another 172 MDth per day or 5%. Additionally, Supply Corporation leases 55 MDth per day or 2% of firm transportation capacity to Empire Pipeline. The remaining 1,856 MDth or 58% is subject to firm contracts with nonaffiliated customers.

Contracted transportation capacity with both affiliated and unaffiliated shippers is expected to remain relatively constant in fiscal year 2017.

Supply Corporation had service agreements for all of its firm storage capacity, totaling 68,042 MDth, at the end of 2016. The Utility segment has contracted for 28,491 MDth or 42% of the total firm storage capacity, and the Energy Marketing segment accounts for another 2,644 MDth or 4%. Additionally, Supply Corporation leases 3,753 MDth or 5% of its firm storage capacity to Empire. Nonaffiliated customers have contracted for the remaining 33,154 MDth or 49%. Supply Corporation expects 1% of its contracts for firm storage capacity will expire or terminate and be available for remarketing in fiscal year 2017.

At the end of 2016, Empire had service agreements in place for firm transportation capacity totaling up to approximately 948 MDth per day, with 98% of that capacity contracted as long-term, full-year deals. The Utility segment accounted for 4% of Empire's firm contracted capacity, with the remaining 96% subject to contracts with nonaffiliated customers. None of the long-term contracts will expire or terminate in fiscal year 2017.

Empire's firm storage capacity, totaling 3,753 MDth, was fully contracted at the end of fiscal year 2016. The total storage capacity is contracted on a long-term basis, with a nonaffiliated customer. The contract will not expire or terminate in fiscal year 2017.

The majority of Supply Corporation's transportation and storage contracts, and the majority of Empire's transportation contracts, allow either party to terminate the contract upon six or twelve months' notice effective at the end of the primary term, and include "evergreen" language that allows for annual term extension(s).

Additional discussion of the Pipeline and Storage segment appears below under the headings "Sources and Availability of Raw Materials," "Competition: The Pipeline and Storage Segment" and "Seasonality," in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

The Gathering Segment

The Gathering segment contributed net income in 2016. This net income partially offset the Company's 2016 net loss by 10.5%.

Additional discussion of the Gathering segment appears below under the headings "Sources and Availability of Raw Materials" and "Competition: The Gathering Segment," in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

The Utility Segment

The Utility segment contributed net income in 2016. This net income partially offset the Company's 2016 net loss by 17.5%.

Additional discussion of the Utility segment appears below under the headings "Sources and Availability of Raw Materials," "Competition: The Utility Segment" and "Seasonality," in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

The Energy Marketing Segment

The Energy Marketing segment contributed net income in 2016. This net income partially offset the Company's 2016 net loss by 1.5%.

Additional discussion of the Energy Marketing segment appears below under the headings "Sources and Availability of Raw Materials," "Competition: The Energy Marketing Segment" and "Seasonality," in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

All Other Category and Corporate Operations

The All Other category and Corporate operations incurred a net loss in 2016. This represented 0.2% of the Company's 2016 net loss.

Additional discussion of the All Other category and Corporate operations appears below in Item 7, MD&A and in Item 8, Financial Statements and Supplementary Data.

Sources and Availability of Raw Materials

The Exploration and Production segment seeks to discover and produce raw materials (natural gas, oil and hydrocarbon liquids) as further described in this report in Item 7, MD&A and Item 8 at Note J — Business Segment Information and Note M — Supplementary Information for Oil and Gas Producing Activities.

The Pipeline and Storage segment transports and stores natural gas owned by its customers, whose gas originates in the southwestern, mid-continent and Appalachian regions of the United States as well as in Canada. Additional discussion of proposed pipeline projects appears below under “Competition: The Pipeline and Storage Segment” and in Item 7, MD&A.

The Gathering segment gathers, processes and transports natural gas that is produced by Seneca in the Appalachian region of the United States. Additional discussion of proposed gathering projects appears below in Item 7, MD&A.

Natural gas is the principal raw material for the Utility segment. In 2016, the Utility segment purchased 55.8 Bcf of gas for delivery to its customers. Gas purchased from producers and suppliers in the United States under firm contracts (seasonal and longer) accounted for 51% of these purchases. Purchases of gas on the spot market (contracts for one month or less) accounted for 49% of the Utility segment’s 2016 purchases. Purchases from DTE Energy Trading, Inc. (22%), SWN Energy Services Company, LLC (16%), NextEra Energy Power Marketing, LLC (14%), J. Aron & Company (14%) and South Jersey Resources Group, LLC (12%) accounted for 78% of the Utility’s 2016 gas purchases. No other producer or supplier provided the Utility segment with more than 9% of its gas requirements in 2016.

The Energy Marketing segment depends on an adequate supply of natural gas to deliver to its customers. In 2016, this segment purchased 40.4 Bcf of gas, including 39.8 Bcf for delivery to its customers. The remaining 0.6 Bcf largely represents gas used in operations. The gas purchased by the Energy Marketing segment originates primarily in either the Appalachian or mid-continent regions of the United States.

Competition

Competition in the natural gas industry exists among providers of natural gas, as well as between natural gas and other sources of energy, such as fuel oil and electricity. Management believes that the environmental advantages of natural gas have enhanced its competitive position relative to other fuels.

The Company competes on the basis of price, service and reliability, product performance and other factors. Sources and providers of energy, other than those described under this “Competition” heading, do not compete with the Company to any significant extent.

Competition: The Exploration and Production Segment

The Exploration and Production segment competes with other oil and natural gas producers and marketers with respect to sales of oil and natural gas. The Exploration and Production segment also competes, by competitive bidding and otherwise, with other oil and natural gas producers with respect to exploration and development prospects and mineral leaseholds.

To compete in this environment, Seneca originates and acts as operator on certain of its prospects, seeks to minimize the risk of exploratory efforts through partnership-type arrangements, utilizes technology for both exploratory studies and drilling operations, and seeks market niches based on size, operating expertise and financial criteria.

Competition: The Pipeline and Storage Segment

Supply Corporation competes for market growth in the natural gas market with other pipeline companies transporting gas in the northeast United States and with other companies providing gas storage services. Supply

Corporation has some unique characteristics which enhance its competitive position, as described below. Most of Supply Corporation's facilities are in or near areas overlying the Marcellus and Utica Shale production areas in Pennsylvania, and it has established interconnections with producers and other pipelines to access these supplies. Its facilities are also located adjacent to the Canadian border at the Niagara River (Niagara) providing access to markets in Canada and, through TransCanada Pipeline, to markets in the northeastern and midwestern United States. Supply Corporation has developed and placed into service a number of pipeline expansion projects to receive natural gas produced from the Marcellus Shale and transport it to key markets within New York and Pennsylvania, the northeastern United States, Canada, and most recently to long-haul pipelines moving gas into the U.S. Midwest and even back to the gulf coast. For further discussion of these projects, refer to Item 7, MD&A under the headings "Investing Cash Flow" and "Rate and Regulatory Matters."

Empire competes for market growth in the natural gas market with other pipeline companies transporting gas in the northeast United States and upstate New York in particular. Empire is well situated to provide transportation of Appalachian-sourced gas as well as gas received at the Niagara River at Chippawa. Empire's location provides it the opportunity to compete for an increased share of the gas transportation markets both for delivery to the New York and Northeast markets and from and into Canada. As noted above, the Empire Connector and other projects expanded Empire's natural gas pipeline and enables Empire to serve new markets in New York and elsewhere in the Northeast, and to attach to prolific Marcellus and Utica supplies principally from Tioga and Bradford Counties in Pennsylvania. Like Supply Corporation, Empire's expanded system facilitates transportation of Marcellus Shale gas to key markets within New York State, the northeastern United States and Canada.

Competition: The Gathering Segment

The Gathering segment provides gathering services for Seneca's production and competes with other companies that gather and process natural gas in the Appalachian region.

Competition: The Utility Segment

With respect to gas commodity service, in New York and Pennsylvania, both of which have implemented "unbundling" policies that allow customers to choose their gas commodity supplier, Distribution Corporation has retained a substantial majority of small sales customers. In New York, approximately 21%, and in Pennsylvania, approximately 14%, of Distribution Corporation's small-volume residential and commercial customers purchase their supplies from unregulated marketers. In contrast, almost all large-volume load is served by unregulated retail marketers. However, retail competition for gas commodity service does not pose an acute competitive threat for Distribution Corporation, because in both jurisdictions, utility cost of service is recovered through rates and charges for gas delivery service, not gas commodity service. Over the longer run, it is possible that rate design changes resulting from further customer migration to marketer service could expose utility companies such as Distribution Corporation to stranded costs and revenue erosion in the absence of compensating rate relief.

Competition for transportation service to large-volume customers continues with local producers or pipeline companies attempting to sell or transport gas directly to end-users located within the Utility segment's service territories without use of the utility's facilities (i.e., bypass). In addition, competition continues with fuel oil suppliers.

The Utility segment competes in its most vulnerable markets (the large commercial and industrial markets) by offering unbundled, flexible, high quality services. The Utility segment continues to develop or promote new uses of natural gas as well as new services, rates and contracts.

Competition: The Energy Marketing Segment

The Energy Marketing segment competes with other marketers of natural gas and with other providers of energy supply. Competition in this area is well developed with regard to price and services from local, regional and national marketers.

Seasonality

Variations in weather conditions can materially affect the volume of natural gas delivered by the Utility segment, as virtually all of its residential and commercial customers use natural gas for space heating. The effect that this has on Utility segment margins in New York is mitigated by a WNC, which covers the eight-month period from October through May. Weather that is warmer than normal results in an upward adjustment to customers' current bills, while weather that is colder than normal results in a downward adjustment, so that in either case projected operating costs calculated at normal temperatures will be recovered.

Volumes transported and stored by Supply Corporation and volumes transported by Empire may vary materially depending on weather, without materially affecting the revenues of those companies. Supply Corporation's and Empire's allowed rates are based on a straight fixed-variable rate design which allows recovery of fixed costs in fixed monthly reservation charges. Variable charges based on volumes are designed to recover only the variable costs associated with actual transportation or storage of gas.

Variations in weather conditions materially affect the volume of gas consumed by customers of the Energy Marketing segment. Volume variations have a corresponding impact on revenues within this segment.

Capital Expenditures

A discussion of capital expenditures by business segment is included in Item 7, MD&A under the heading "Investing Cash Flow."

Environmental Matters

A discussion of material environmental matters involving the Company is included in Item 7, MD&A under the heading "Environmental Matters" and in Item 8, Note I — Commitments and Contingencies.

Miscellaneous

The Company and its wholly owned or majority-owned subsidiaries had a total of 2,080 full-time employees at September 30, 2016.

The Company has agreements in place with collective bargaining units in New York and Pennsylvania. Agreements covering employees in collective bargaining units in New York are scheduled to expire in February 2017. One of the New York collective bargaining units approved a new agreement that will take effect in February 2017 and expire in February 2021. The Company is in ongoing settlement discussions with the other New York collective bargaining unit with respect to a new agreement. Agreements covering employees in collective bargaining units in Pennsylvania are scheduled to expire in April 2018 and May 2018.

The Utility segment has numerous municipal franchises under which it uses public roads and certain other rights-of-way and public property for the location of facilities. When necessary, the Utility segment renews such franchises.

The Company makes its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, available free of charge on the Company's internet website, www.nationalfuelgas.com, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The information available at the Company's internet website is not part of this Form 10-K or any other report filed with or furnished to the SEC.

Executive Officers of the Company as of November 15, 2016(1)

Name and Age (as of November 15, 2016)	Current Company Positions and Other Material Business Experience During Past Five Years
Ronald J. Tanski (64)	Chief Executive Officer of the Company since April 2013 and President of the Company since July 2010. Mr. Tanski previously served as Chief Operating Officer of the Company from July 2010 through March 2013.
John R. Pustulka (64)	Chief Operating Officer of the Company since February 2016. Mr. Pustulka previously served as President of Supply Corporation from July 2010 through January 2016.
David P. Bauer (47)	President of Supply Corporation since February 2016. Treasurer and Principal Financial Officer of the Company since July 2010. Treasurer of Seneca since April 2015; Treasurer of Distribution Corporation since April 2015; Treasurer of Midstream Corporation since April 2013; Treasurer of Supply Corporation since June 2007; and Treasurer of Empire since June 2007. Mr. Bauer previously served as Assistant Treasurer of Distribution Corporation from April 2004 through March 2015.
Carl M. Carlotti (61)	President of Distribution Corporation since February 2016. Mr. Carlotti previously served as Senior Vice President of Distribution Corporation from January 2008 through January 2016.
John P. McGinnis (56)	President of Seneca Resources Corporation since May 2016. Mr. McGinnis previously served as Chief Operating Officer of Seneca Resources Corporation from October 2015 through April 2016 and Senior Vice President of Seneca Resources Corporation from March 2007 through September 2015.
Paula M. Ciprich (56)	Senior Vice President of the Company since April 2015; Secretary of the Company since July 2008; General Counsel of the Company since January 2005; Secretary of Distribution Corporation since July 2008.
Karen M. Camiolo (57)	Controller and Principal Accounting Officer of the Company since April 2004; Vice President of Distribution Corporation since April 2015; Controller of Midstream Corporation since April 2013; Controller of Empire since June 2007; and Controller of Distribution Corporation and Supply Corporation since April 2004.
Donna L. DeCarolis (57)	Vice President Business Development of the Company since October 2007.

- (1) The executive officers serve at the pleasure of the Board of Directors. The information provided relates to the Company and its principal subsidiaries. Many of the executive officers also have served or currently serve as officers or directors of other subsidiaries of the Company.

Item 1A Risk Factors

As a holding company, the Company depends on its operating subsidiaries to meet its financial obligations.

The Company is a holding company with no significant assets other than the stock of its operating subsidiaries. In order to meet its financial needs, the Company relies exclusively on repayments of principal and interest on intercompany loans made by the Company to its operating subsidiaries and income from dividends and other cash flow from the subsidiaries. Such operating subsidiaries may not generate sufficient net income to pay upstream dividends or generate sufficient cash flow to make payments of principal or interest on such intercompany loans.

The Company is dependent on capital and credit markets to successfully execute its business strategies.

The Company relies upon short-term bank borrowings, commercial paper markets and longer-term capital markets to finance capital requirements not satisfied by cash flow from operations. The Company is dependent on these capital sources to provide capital to its subsidiaries to fund operations, acquire, maintain and develop properties, and execute growth strategies. The availability and cost of credit sources may be cyclical and these capital sources may not remain available to the Company. Turmoil in credit markets may make it difficult for the Company to obtain financing on acceptable terms or at all for working capital, capital expenditures and other investments, or to refinance maturing debt on favorable terms. These difficulties could adversely affect the Company's growth strategies, operations and financial performance. The Company's ability to borrow under its credit facilities and commercial paper agreements, and its ability to issue long-term debt under its indentures, depend on the Company's compliance with its obligations under the facilities, agreements and indentures. Under the Company's 1974 indenture, the Company has been precluded since October 1, 2015 from issuing incremental long-term debt as a result of impairments (i.e., write-downs) of its oil and gas properties. Given the impairments recognized through September 30, 2016, and assuming no further significant ceiling test impairments, the Company expects to be precluded from issuing incremental long-term debt until the second half of fiscal 2017, absent amendment or waiver by existing noteholders of a covenant in the 1974 indenture. The 1974 indenture would not preclude the Company from issuing new long-term debt to replace maturing long-term debt.

In addition, the Company's short-term bank loans are in the form of floating rate debt or debt that may have rates fixed for very short periods of time, resulting in exposure to interest rate fluctuations in the absence of interest rate hedging transactions. The cost of long-term debt, the interest rates on the Company's short-term bank loans and the ability of the Company to issue commercial paper are affected by its debt credit ratings published by S&P, Moody's Investors Service, Inc. and Fitch Ratings. A downgrade in the Company's credit ratings could increase borrowing costs, negatively impact the availability of capital from banks, commercial paper purchasers and other sources, and require the Company's subsidiaries to post letters of credit, cash or other assets as collateral with certain counterparties. If the Company is not able to maintain investment-grade credit ratings, it may not be able to access commercial paper markets.

The Company may be adversely affected by economic conditions and their impact on our suppliers and customers.

Periods of slowed economic activity generally result in decreased energy consumption, particularly by industrial and large commercial companies. As a consequence, national or regional recessions or other downturns in economic activity could adversely affect the Company's revenues and cash flows or restrict its future growth. Economic conditions in the Company's utility service territories and energy marketing territories also impact its collections of accounts receivable. All of the Company's segments are exposed to risks associated with the creditworthiness or performance of key suppliers and customers, many of which may be adversely affected by volatile conditions in the financial markets. These conditions could result in financial instability or other adverse effects at any of our suppliers or customers. For example, counterparties to the Company's commodity hedging arrangements or commodity sales contracts might not be able to perform their obligations under these arrangements or contracts. Customers of the Company's Utility and Energy Marketing segments may have particular trouble paying their bills during periods of declining economic activity or high commodity prices, potentially resulting in increased bad debt expense and reduced earnings. Similarly, if reductions were to occur in funding of the federal

Low Income Home Energy Assistance Program, bad debt expense could increase and earnings could decrease. In addition, oil and gas exploration and production companies that are customers of the Company's Pipeline and Storage segment may decide not to renew contracts for the same transportation capacity during periods of reduced production due to persistent low commodity prices. Any of these events could have a material adverse effect on the Company's results of operations, financial condition and cash flows.

The Company's credit ratings may not reflect all the risks of an investment in its securities.

The Company's credit ratings are an independent assessment of its ability to pay its obligations. Consequently, real or anticipated changes in the Company's credit ratings will generally affect the market value of the specific debt instruments that are rated, as well as the market value of the Company's common stock. The Company's credit ratings, however, may not reflect the potential impact on the value of its common stock of risks related to structural, market or other factors discussed in this Form 10-K.

The Company's need to comply with comprehensive, complex, and the sometimes unpredictable enforcement of government regulations may increase its costs and limit its revenue growth, which may result in reduced earnings.

While the Company generally refers to its Utility segment and its Pipeline and Storage segment as its "regulated segments," there are many governmental regulations that have an impact on almost every aspect of the Company's businesses. Existing statutes and regulations may be revised or reinterpreted and new laws and regulations may be adopted or become applicable to the Company, which may increase the Company's costs or affect its business in ways that the Company cannot predict.

In the Company's Utility segment, the operations of Distribution Corporation are subject to the jurisdiction of the NYPSC, the PaPUC and, with respect to certain transactions, the FERC. The NYPSC and the PaPUC, among other things, approve the rates that Distribution Corporation may charge to its utility customers. Those approved rates also impact the returns that Distribution Corporation may earn on the assets that are dedicated to those operations. If Distribution Corporation is required in a rate proceeding to reduce the rates it charges its utility customers, or to the extent Distribution Corporation is unable to obtain approval for rate increases from these regulators, particularly when necessary to cover increased costs (including costs that may be incurred in connection with governmental investigations or proceedings or mandated infrastructure inspection, maintenance or replacement programs), earnings may decrease.

In addition to their historical methods of utility regulation, both the PaPUC and NYPSC have established competitive markets in which customers may purchase gas commodity from unregulated marketers, in addition to utility companies. Retail competition for gas commodity service does not pose an acute competitive threat for Distribution Corporation because in both jurisdictions it recovers its cost of service through delivery rates and charges, and not through any mark-up on the gas commodity purchased by its customers. Over the longer run, however, rate design changes resulting from customer migration to marketer service ("unbundling") can expose utilities such as Distribution Corporation to stranded costs and revenue erosion in the absence of compensating rate relief.

Both the NYPSC and the PaPUC have, from time-to-time, instituted proceedings for the purpose of promoting conservation of energy commodities, including natural gas. In New York, Distribution Corporation implemented a Conservation Incentive Program that promotes conservation and efficient use of natural gas by offering customer rebates for the installation of high-efficiency appliances, among other things. The intent of conservation and efficiency programs is to reduce customer usage of natural gas. Under traditional volumetric rates, reduced usage by customers results in decreased revenues to the Utility. To prevent revenue erosion caused by conservation, the NYPSC approved a "revenue decoupling mechanism" that renders Distribution Corporation's New York division financially indifferent to the effects of conservation. In Pennsylvania, the PaPUC has not directed Distribution Corporation to implement conservation program. If the NYPSC were to revoke the revenue decoupling mechanism in a future proceeding or the PaPUC were to adopt a conservation program without revenue decoupling mechanism or other changes in rate design, reduced customer usage could decrease revenues, forcing Distribution Corporation to file for rate relief. If Distribution Corporation were unable to obtain adequate rate relief, its financial condition, results of operations and cash flows would be adversely affected.

In New York, aggressive generic statewide programs created under the label of efficiency or conservation continue to generate a sizable utility funding requirement for state agencies that administer those programs. Although utilities are authorized to recover the cost of efficiency and conservation program funding through special rates and surcharges, the resulting upward pressure on customer rates, coupled with increased assessments and taxes, could affect future tolerance for traditional utility rate increases, especially if natural gas commodity costs were to increase.

The Company is subject to the jurisdiction of the FERC with respect to Supply Corporation, Empire and some transactions performed by other Company subsidiaries, including Seneca, Distribution Corporation and NFR. The FERC, among other things, approves the rates that Supply Corporation and Empire may charge to their natural gas transportation and/or storage customers. Those approved rates also impact the returns that Supply Corporation and Empire may earn on the assets that are dedicated to those operations. Pursuant to the petition of a customer or state commission, or on the FERC's own initiative, the FERC has the authority to investigate whether Supply Corporation's and Empire's rates are still "just and reasonable" as required by the NGA, and if not, to adjust those rates prospectively. If Supply Corporation or Empire is required in a rate proceeding to adjust the rates it charges its natural gas transportation and/or storage customers, or if either Supply Corporation or Empire is unable to obtain approval for rate increases, particularly when necessary to cover increased costs, Supply Corporation's or Empire's earnings may decrease. The FERC also possesses significant penalty authority with respect to violations of the laws and regulations it administers. Supply Corporation, Empire and, to the extent subject to FERC jurisdiction, the Company's other subsidiaries are subject to the FERC's penalty authority. In addition, the FERC exercises jurisdiction over the construction and operation of facilities used in interstate gas transmission. Also, decisions of Canadian regulators such as the National Energy Board and the Ontario Energy Board could affect the viability and profitability of Supply Corporation and Empire projects designed to transport gas from between Canada and the U.S.

The Company is also subject to the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA issues regulations and conducts evaluations, among other things, that set safety standards for pipelines and underground storage facilities. Compliance with new legislation could increase costs to the Company. Non-compliance with this legislation could result in civil penalties for pipeline safety violations. If as a result of these or similar new laws or regulations the Company incurs material costs that it is unable to recover fully through rates or otherwise offset, the Company's financial condition, results of operations, and cash flows could be adversely affected.

In the Company's Exploration and Production segment, various aspects of Seneca's operations are subject to regulation by, among others, the EPA, the U.S. Fish and Wildlife Service, the U.S. Forestry Service, the Bureau of Land Management, the PaDEP, the Pennsylvania Department of Conservation and Natural Resources, the Division of Oil, Gas and Geothermal Resources of the California Department of Conservation, the California Department of Fish and Wildlife, and in some areas, locally adopted ordinances. Administrative proceedings or increased regulation by these or other agencies could lead to operational delays or restrictions and increased expense for Seneca.

The nature of the Company's operations presents inherent risks of loss that could adversely affect its results of operations, financial condition and cash flows.

The Company's operations in its various reporting segments are subject to inherent hazards and risks such as: fires; natural disasters; explosions; geological formations with abnormal pressures; blowouts during well drilling; collapses of wellbore casing or other tubulars; pipeline ruptures; spills; and other hazards and risks that may cause personal injury, death, property damage, environmental damage or business interruption losses. Additionally, the Company's facilities, machinery, and equipment may be subject to sabotage. Any of these events could cause a loss of hydrocarbons, environmental pollution, claims for personal injury, death, property damage or business interruption, or governmental investigations, recommendations, claims, fines or penalties. As protection against operational hazards, the Company maintains insurance coverage against some, but not all, potential losses. In addition, many of the agreements that the Company executes with contractors provide for the division of responsibilities between the contractor and the Company, and the Company seeks to obtain an indemnification from the contractor for certain of these risks. The Company is not always able, however, to secure written agreements with its contractors that contain indemnification, and sometimes the Company is required to indemnify others.

Insurance or indemnification agreements, when obtained, may not adequately protect the Company against liability from all of the consequences of the hazards described above. The occurrence of an event not fully insured or indemnified against, the imposition of fines, penalties or mandated programs by governmental authorities, the failure of a contractor to meet its indemnification obligations, or the failure of an insurance company to pay valid claims could result in substantial losses to the Company. In addition, insurance may not be available, or if available may not be adequate, to cover any or all of these risks. It is also possible that insurance premiums or other costs may rise significantly in the future, so as to make such insurance prohibitively expensive.

Hazards and risks faced by the Company, and insurance and indemnification obtained or provided by the Company, may subject the Company to litigation or administrative proceedings from time to time. Such litigation or proceedings could result in substantial monetary judgments, fines or penalties against the Company or be resolved on unfavorable terms, the result of which could have a material adverse effect on the Company's results of operations, financial condition and cash flows.

Environmental regulation significantly affects the Company's business.

The Company's business operations are subject to federal, state, and local laws and regulations relating to environmental protection. These laws and regulations concern the generation, storage, transportation, disposal, emission or discharge of pollutants, contaminants, hazardous substances and greenhouse gases into the environment, the reporting of such matters, and the general protection of public health, natural resources, wildlife and the environment. For example, currently applicable environmental laws and regulations restrict the types, quantities and concentrations of materials that can be released into the environment in connection with regulated activities, limit or prohibit activities in certain protected areas, and may require the Company to investigate and/or remediate contamination at certain current and former properties regardless of whether such contamination resulted from the Company's actions or whether such actions were in compliance with applicable laws and regulations at the time they were taken. Moreover, spills or releases of regulated substances or the discovery of currently unknown contamination could expose the Company to material losses, expenditures and environmental, health and safety liabilities. Such liabilities could include penalties, sanctions or claims for damages to persons, property or natural resources brought on behalf of the government or private litigants that could cause the Company to incur substantial costs or uninsured losses.

In addition, the Company must obtain, maintain and comply with numerous permits, leases, approvals, consents and certificates from various governmental authorities before commencing regulated activities. In connection with such activities, the Company may need to make significant capital and operating expenditures to detect, repair and/or control air emissions, to control water discharges or to perform certain corrective actions to meet the conditions of the permits issued pursuant to applicable environmental laws and regulations. Any failure to comply with applicable environmental laws and regulations and the terms and conditions of its environmental permits and authorizations could result in the assessment of significant administrative, civil and/or criminal penalties, the imposition of investigatory or remedial obligations and corrective actions, the revocation of required permits, or the issuance of injunctions limiting or prohibiting certain of the Company's operations.

Costs of compliance and liabilities could negatively affect the Company's results of operations, financial condition and cash flows. In addition, compliance with environmental laws and regulations could require unexpected capital expenditures at the Company's facilities, temporarily shut down the Company's facilities or delay or cause the cancellation of expansion projects or oil and natural gas drilling activities. Because the costs of complying with environmental regulations are significant, additional regulation could negatively affect the Company's business. Although the Company cannot predict the impact of the interpretation or enforcement of EPA standards or other federal, state and local laws or regulations, the Company's costs could increase if environmental laws and regulations change.

Legislative and regulatory measures to address climate change and greenhouse gas emissions are in various phases of discussion or implementation. Under the Federal Clean Air Act, the EPA requires that new stationary sources of significant greenhouse gas emissions or major modifications of existing facilities obtain permits covering such emissions. The EPA recently adopted final regulations that set methane emissions standards for new oil and natural gas emission sources. In addition, the EPA issued draft guidelines for voluntarily reducing emissions from existing equipment and processes in the oil and natural gas industry and is moving toward the regulation of emissions

from existing sources as well. Further, the U.S. Congress has from time to time considered bills that would establish a cap-and-trade program to reduce emissions of greenhouse gases. With respect to its operations in California, the Company currently complies with California cap-and-trade guidelines, which increases the Company's cost of environmental compliance in its Exploration and Production segment operations. Legislation or regulation that aims to reduce greenhouse gas emissions could also include carbon taxes, restrictive permitting, increased efficiency standards, and incentives or mandates to conserve energy or use renewable energy sources. Federal, state or local governments may, for example, provide tax advantages and other subsidies to support alternative energy sources, mandate the use of specific fuels or technologies, or promote research into new technologies to reduce the cost and increase the scalability of alternative energy sources. These climate change and greenhouse gas initiatives could increase the Company's cost of environmental compliance by requiring the Company to install new equipment to reduce emissions from larger facilities and/or purchase emission allowances. They could also delay or otherwise negatively affect efforts to obtain permits and other regulatory approvals with regard to existing and new facilities, impose additional monitoring and reporting requirements, and reduce demand for oil and natural gas.

Third parties may attempt to breach the Company's network security, which could disrupt the Company's operations and adversely affect its financial results.

The Company's information technology systems are subject to attempts by others to gain unauthorized access through the Internet, or to otherwise introduce malicious software. These attempts might be the result of industrial or other espionage, or actions by hackers seeking to harm the Company, its services or customers. Attempts to breach the Company's network security may result in disruption of the Company's business operations and services, delays in production, theft of sensitive and valuable data, damage to our physical systems, and reputational harm. Significant expenditures may be required to remedy breaches, including restoration of customer service and enhancement of information technology systems. The Company seeks to prevent, detect and investigate these security incidents, but in some cases the Company might be unaware of an incident or its magnitude and effects. The Company has experienced attempts to breach its network security, and although the scope of such incidents is sometimes unknown, they could prove to be material to the Company. These security incidents may have an adverse impact on the Company's operations, earnings and financial condition.

Delays or changes in plans or costs with respect to Company projects, including delays in obtaining necessary approvals, permits or orders, could delay anticipated project completion and may result in reduced earnings.

Construction of the Pipeline and Storage segment's planned pipelines and storage facilities, as well as the expansion of existing facilities, is subject to various regulatory, environmental, political, legal, economic and other development risks, including the ability to obtain necessary approvals and permits from regulatory agencies on a timely basis and on acceptable terms. Existing or potential third party opposition, such as opposition from landowner and environmental groups, which are beyond our control, could interfere significantly with or delay the Company's receipt of such approvals or permits, which could materially affect the anticipated construction of a project. In addition, third parties could impede the Gathering segment's acquisition, expansion or renewal of rights-of-way or land rights on a timely basis and on acceptable terms. Any delay in project construction may prevent a planned project from going into service when anticipated, which could cause a delay in the receipt of revenues from those facilities. A significant construction delay in a material project, whatever the cause, may result in reduced earnings and could have a material adverse impact on anticipated operating results.

The Company could be adversely affected by the disallowance of purchased gas costs incurred by the Utility segment.

Tariff rate schedules in each of the Utility segment's service territories contain purchased gas adjustment clauses which permit Distribution Corporation to file with state regulators for rate adjustments to recover increases in the cost of purchased gas. Assuming those rate adjustments are granted, increases in the cost of purchased gas have no direct impact on profit margins. Distribution Corporation is required to file an accounting reconciliation with the regulators in each of the Utility segment's service territories regarding the costs of purchased gas. There is a risk of disallowance of full recovery of these costs if regulators determine that Distribution Corporation was imprudent in making its gas purchases. Any material disallowance of purchased gas costs could have a material adverse effect on cash flow and earnings.

Changes in interest rates may affect the Company's ability to finance capital expenditures and to refinance maturing debt.

The Company's ability to cost-effectively finance capital expenditures and to refinance maturing debt will depend in part upon interest rates. The direction in which interest rates may move is uncertain. Declining interest rates have generally been believed to be favorable to utilities, while rising interest rates are generally believed to be unfavorable, because of the levels of debt that utilities may have outstanding. In addition, the Company's authorized rate of return in its regulated businesses is based upon certain assumptions regarding interest rates. If interest rates are lower than assumed rates, the Company's authorized rate of return could be reduced. If interest rates are higher than assumed rates, the Company's ability to earn its authorized rate of return may be adversely impacted.

Fluctuations in oil and natural gas prices could adversely affect revenues, cash flows and profitability.

Operations in the Company's Exploration and Production segment are materially dependent on prices received for its oil and natural gas production. Both short-term and long-term price trends affect the economics of exploring for, developing, producing, gathering and processing oil and natural gas. Oil and natural gas prices can be volatile and can be affected by: weather conditions, natural disasters, the supply and price of foreign oil and natural gas, the level of consumer product demand, national and worldwide economic conditions, economic disruptions caused by terrorist activities, acts of war or major accidents, political conditions in foreign countries, the price and availability of alternative fuels, the proximity to, and availability of, capacity on transportation facilities, regional levels of supply and demand, energy conservation measures, and government regulations, such as regulation of greenhouse gas emissions and natural gas transportation, royalties, and price controls. The Company sells the oil and natural gas that it produces at a combination of current market prices, indexed prices or through fixed-price contracts. The Company hedges a significant portion of future sales that are based on indexed prices utilizing the physical sale counter-party or the financial markets. The prices the Company receives depend upon factors beyond the Company's control, including the factors affecting price mentioned above. The Company believes that any prolonged reduction in oil and natural gas prices could restrict its ability to continue the level of exploration and production activity the Company otherwise would pursue, which could have a material adverse effect on its revenues, cash flows and results of operations.

The natural gas the Company produces is priced in local markets where production occurs, and price is therefore affected by local or regional supply and demand factors as well as other local market dynamics such as regional pipeline capacity. Currently, the prices the Company receives for its natural gas production in the local markets where production occurs are generally lower than the relevant benchmark prices, such as NYMEX, that are used for commodity trading purposes. The difference between the benchmark price and the price the Company receives is called a differential. The Company may be unable to accurately predict natural gas differentials, which may widen significantly in the future. Numerous factors may influence local commodity pricing, such as pipeline takeaway capacity and specifications, localized storage capacity, disruptions in the midstream or downstream sectors of the industry, trade restrictions and governmental regulations. Insufficient pipeline or storage capacity, or a lack of demand or surplus of supply in any given operating area may cause the differential to widen in that area compared to other natural gas producing areas. Increases in the differential could lead to production curtailments or otherwise have a material adverse effect on the Company's revenues, cash flows and results of operations.

In the Company's Pipeline and Storage segment, significant changes in the price differential between equivalent quantities of natural gas at different geographic locations could adversely impact the Company. For example, if the price of natural gas at a particular receipt point on the Company's pipeline system increases relative to the price of natural gas at other locations, then the volume of natural gas received by the Company at the relatively more expensive receipt point may decrease, or the price the Company charges to transport that natural gas may decrease. Changes in price differentials can cause shippers to seek alternative lower priced gas supplies and, consequently, alternative transportation routes. In some cases, shippers may decide not to renew transportation contracts due to changes in price differentials. While much of the impact of lower volumes under existing contracts would be offset by the straight fixed-variable rate design utilized by Supply Corporation and Empire, this rate design does not protect Supply Corporation or Empire where shippers do not contract for expiring capacity at the same quantity and rate. If contract renewals were to decrease, revenues and earnings in the Pipeline and Storage segment may decrease. Significant changes in the price differential between futures contracts for natural gas having

different delivery dates could also adversely impact the Company. For example, if the prices of natural gas futures contracts for winter deliveries to locations served by the Pipeline and Storage segment decline relative to the prices of such contracts for summer deliveries (as a result, for instance, of increased production of natural gas within the Pipeline and Storage segment's geographic area or other factors), then demand for the Company's natural gas storage services driven by that price differential could decrease. Such changes in price differential could also affect the Energy Marketing segment's ability to offset its natural gas storage costs through hedging transactions. These changes could adversely affect revenues, cash flows and results of operations.

The Company has significant transactions involving price hedging of its oil and natural gas production as well as its fixed price purchase and sale commitments.

In order to protect itself to some extent against unusual price volatility and to lock in fixed pricing on oil and natural gas production for certain periods of time, the Company's Exploration and Production segment regularly enters into commodity price derivatives contracts (hedging arrangements) with respect to a portion of its expected production. These contracts may at any time cover as much as approximately 80% of the Company's expected energy production during the upcoming 12-month period. These contracts reduce exposure to subsequent price drops but can also limit the Company's ability to benefit from increases in commodity prices. In addition, the Energy Marketing segment enters into certain hedging arrangements, primarily with respect to its fixed price purchase and sales commitments and its gas stored underground.

Under applicable accounting rules currently in effect, the Company's hedging arrangements are subject to quarterly effectiveness tests. Inherent within those effectiveness tests are assumptions concerning the long-term price differential between different types of crude oil, assumptions concerning the difference between published natural gas price indexes established by pipelines into which hedged natural gas production is delivered and the reference price established in the hedging arrangements, assumptions regarding the levels of production that will be achieved and, with regard to fixed price commitments, assumptions regarding the creditworthiness of certain customers and their forecasted consumption of natural gas. Depending on market conditions for natural gas and crude oil and the levels of production actually achieved, it is possible that certain of those assumptions may change in the future, and, depending on the magnitude of any such changes, it is possible that a portion of the Company's hedges may no longer be considered highly effective. In that case, gains or losses from the ineffective derivative financial instruments would be marked-to-market on the income statement without regard to an underlying physical transaction. For example, in the Exploration and Production segment, where the Company uses short positions (i.e. positions that pay off in the event of commodity price decline) to hedge forecasted sales, gains would occur to the extent that natural gas and crude oil hedge prices exceed market prices for the Company's natural gas and crude oil production, and losses would occur to the extent that market prices for the Company's natural gas and crude oil production exceed hedge prices.

Use of energy commodity price hedges also exposes the Company to the risk of non-performance by a contract counterparty. These parties might not be able to perform their obligations under the hedge arrangements. In addition, the Company enters into certain commodity price hedges that are cleared through the NYMEX or ICE by futures commission merchants. Under NYMEX and ICE rules, the Company is required to post collateral in connection with such hedges, with such collateral being held by its futures commission merchants. The Company is exposed to the risk of loss of such collateral from occurrences such as financial failure of its futures commission merchants, or misappropriation or mishandling of clients' funds or other similar actions by its futures commission merchants. In addition, the Company is exposed to potential hedging ineffectiveness in the event of a failure by one of its futures commission merchants or contract counterparties.

It is the Company's policy that the use of commodity derivatives contracts comply with various restrictions in effect in respective business segments. For example, in the Exploration and Production segment, commodity derivatives contracts must be confined to the price hedging of existing and forecast production, and in the Energy Marketing segment, commodity derivatives with respect to fixed price purchase and sales commitments must be matched against commitments reasonably certain to be fulfilled. The Company maintains a system of internal controls to monitor compliance with its policy. However, unauthorized speculative trades, if they were to occur, could expose the Company to substantial losses to cover positions in its derivatives contracts. In addition, in the event the Company's actual production of oil and natural gas falls short of hedged forecast production, the Company may incur substantial losses to cover its hedges.

The Dodd-Frank Act increased federal oversight and regulation of the over-the-counter derivatives markets and certain entities that participate in those markets. The act requires the CFTC, the SEC and various banking regulators to promulgate rules and regulations implementing the act. Although regulators have issued certain regulations, other rules that may be relevant to the Company have yet to be finalized. For purposes of the Dodd-Frank Act, under rules adopted by the SEC and/or CFTC, the Company believes that it qualifies as a non-financial end user of derivatives, that is, as a non-financial entity that uses derivatives to hedge or mitigate commercial risk. Nevertheless, other rules that are being developed could have a significant impact on the Company. For example, the CFTC has imposed numerous registration, swaps documentation, business conduct, reporting, and recordkeeping requirements on swap dealers and major swap participants, which frequently are counterparties to the Company's derivative hedging transactions. Regardless of the final capital and margin rules, concern remains that swap dealers and major swap participants will pass along their increased costs stemming from the final and proposed rules through higher transaction costs and prices or other direct or indirect costs. In addition, while the Company expects to be exempt from the Dodd-Frank Act's requirement that swaps be cleared and traded on exchanges or swap execution facilities, the cost of entering into a non-exchange cleared swap that is available as an exchange cleared swap may be greater. The Dodd-Frank Act may also increase costs for derivative recordkeeping, reporting, position limit compliance, and other compliance; cause parties to materially alter the terms of derivative contracts; cause parties to restructure certain derivative contracts; reduce the availability of derivatives to protect against risks that the Company encounters or to optimize assets; reduce the Company's ability to monetize or restructure existing derivative contracts; and increase the Company's exposure to less creditworthy counterparties, all of which could increase the Company's business costs.

You should not place undue reliance on reserve information because such information represents estimates.

This Form 10-K contains estimates of the Company's proved oil and natural gas reserves and the future net cash flows from those reserves that were prepared by the Company's petroleum engineers and audited by independent petroleum engineers. Petroleum engineers consider many factors and make assumptions in estimating oil and natural gas reserves and future net cash flows. These factors include: historical production from the area compared with production from other producing areas; the assumed effect of governmental regulation; and assumptions concerning oil and natural gas prices, production and development costs, severance and excise taxes, and capital expenditures. Lower oil and natural gas prices generally cause estimates of proved reserves to be lower. Estimates of reserves and expected future cash flows prepared by different engineers, or by the same engineers at different times, may differ substantially. Ultimately, actual production, revenues and expenditures relating to the Company's reserves will vary from any estimates, and these variations may be material. Accordingly, the accuracy of the Company's reserve estimates is a function of the quality of available data and of engineering and geological interpretation and judgment.

If conditions remain constant, then the Company is reasonably certain that its reserve estimates represent economically recoverable oil and natural gas reserves and future net cash flows. If conditions change in the future, then subsequent reserve estimates may be revised accordingly. You should not assume that the present value of future net cash flows from the Company's proved reserves is the current market value of the Company's estimated oil and natural gas reserves. In accordance with SEC requirements, the Company bases the estimated discounted future net cash flows from its proved reserves on a 12-month average of historical prices for oil and natural gas (based on first day of the month prices and adjusted for hedging) and on costs as of the date of the estimate. Actual future prices and costs may differ materially from those used in the net present value estimate. Any significant price changes will have a material effect on the present value of the Company's reserves.

Petroleum engineering is a subjective process of estimating underground accumulations of natural gas and other hydrocarbons that cannot be measured in an exact manner. The process of estimating oil and natural gas reserves is complex. The process involves significant decisions and assumptions in the evaluation of available geological, geophysical, engineering and economic data for each reservoir. Future economic and operating conditions are uncertain, and changes in those conditions could cause a revision to the Company's reserve estimates in the future. Estimates of economically recoverable oil and natural gas reserves and of future net cash flows depend upon a number of variable factors and assumptions, including historical production from the area compared with production from other comparable producing areas, and the assumed effects of regulations by governmental

agencies. Because all reserve estimates are to some degree subjective, each of the following items may differ materially from those assumed in estimating reserves: the quantities of oil and natural gas that are ultimately recovered, the timing of the recovery of oil and natural gas reserves, the production and operating costs incurred, the amount and timing of future development and abandonment expenditures, and the price received for the production.

The amount and timing of actual future oil and natural gas production and the cost of drilling are difficult to predict and may vary significantly from reserves and production estimates, which may reduce the Company's earnings.

There are many risks in developing oil and natural gas, including numerous uncertainties inherent in estimating quantities of proved oil and natural gas reserves and in projecting future rates of production and timing of development expenditures. The future success of the Company's Exploration and Production segment depends on its ability to develop additional oil and natural gas reserves that are economically recoverable, and its failure to do so may reduce the Company's earnings. The total and timing of actual future production may vary significantly from reserves and production estimates. The Company's drilling of development wells can involve significant risks, including those related to timing, success rates, and cost overruns, and these risks can be affected by lease and rig availability, geology, and other factors. Drilling for oil and natural gas can be unprofitable, not only from non-productive wells, but from productive wells that do not produce sufficient revenues to return a profit. Also, title problems, weather conditions, governmental requirements, including completion of environmental impact analyses and compliance with other environmental laws and regulations, and shortages or delays in the delivery of equipment and services can delay drilling operations or result in their cancellation. The cost of drilling, completing, and operating wells is significant and often uncertain, and new wells may not be productive or the Company may not recover all or any portion of its investment. Production can also be delayed or made uneconomic if there is insufficient gathering, processing and transportation capacity available at an economic price to get that production to a location where it can be profitably sold. Without continued successful exploitation or acquisition activities, the Company's reserves and revenues will decline as a result of its current reserves being depleted by production. The Company cannot make assurances that it will be able to find or acquire additional reserves at acceptable costs.

Financial accounting requirements regarding exploration and production activities may affect the Company's profitability.

The Company accounts for its exploration and production activities under the full cost method of accounting. Each quarter, the Company must perform a "ceiling test" calculation, comparing the level of its unamortized investment in oil and natural gas properties to the present value of the future net revenue projected to be recovered from those properties according to methods prescribed by the SEC. In determining present value, the Company uses a 12-month historical average price for oil and natural gas (based on first day of the month prices and adjusted for hedging). If, at the end of any quarter, the amount of the unamortized investment exceeds the net present value of the projected future cash flows, such investment may be considered to be "impaired," and the full cost accounting rules require that the investment must be written down to the calculated net present value. Such an instance would require the Company to recognize an immediate expense in that quarter, and its earnings would be reduced. Depending on the magnitude of any decrease in average prices, that charge could be material. For the fiscal year ended September 30, 2015, the Company recognized pre-tax impairment charges on its oil and natural gas properties of \$1.1 billion. For the fiscal year ended September 30, 2016, the Company recognized a pre-tax impairment charge on its oil and natural gas properties of \$948.3 million.

Increased regulation of exploration and production activities, including hydraulic fracturing, could adversely impact the Company.

Due to the burgeoning Marcellus Shale natural gas play in the northeast United States, together with the fiscal difficulties faced by state governments in New York and Pennsylvania, various state legislative and regulatory initiatives regarding the exploration and production business have been proposed. These initiatives include potential new or updated statutes and regulations governing the drilling, casing, cementing, testing, abandonment and monitoring of wells, the protection of water supplies and restrictions on water use and water rights, hydraulic fracturing operations, surface owners' rights and damage compensation, the spacing of wells, use and disposal of

potentially hazardous materials, and environmental and safety issues regarding natural gas pipelines. New permitting fees and/or severance taxes for oil and gas production are also possible. Additionally, legislative initiatives in the U.S. Congress and regulatory studies, proceedings or rule-making initiatives at federal or state agencies focused on the hydraulic fracturing process and related operations could result in additional permitting, compliance, reporting and disclosure requirements. For example, the EPA has adopted regulations that establish emission performance standards for hydraulic fracturing operations as well as natural gas gathering and transmission operations. Other EPA initiatives could expand water quality and hazardous waste regulation of hydraulic fracturing and related operations. In California, legislation regarding well stimulation, including hydraulic fracturing, has been adopted. The law mandates technical standards for well construction, hydraulic fracturing water management, groundwater monitoring, seismicity monitoring during hydraulic fracturing operations and public disclosure of hydraulic fracturing fluid constituents. Additionally, California DOGGR adopted regulations intended to bring California's Class II Underground Injection Control (UIC) program into compliance with the federal Safe Drinking Water Act, under which some wells may require an aquifer exemption. DOGGR began reviewing all active UIC projects, regardless of whether an exemption is required. These and any other new state or federal legislative or regulatory measures could lead to operational delays or restrictions, increased operating costs, additional regulatory burdens and increased risks of litigation for the Company.

The increasing costs of certain employee and retiree benefits could adversely affect the Company's results.

The Company's earnings and cash flow may be impacted by the amount of income or expense it expends or records for employee benefit plans. This is particularly true for pension and other post-retirement benefit plans, which are dependent on actual plan asset returns and factors used to determine the value and current costs of plan benefit obligations. In addition, if medical costs rise at a rate faster than the general inflation rate, the Company might not be able to mitigate the rising costs of medical benefits. Increases to the costs of pension, other post-retirement and medical benefits could have an adverse effect on the Company's financial results.

Significant shareholders or potential shareholders may attempt to effect changes at the Company or acquire control over the Company, which could adversely affect the Company's results of operations and financial condition.

Shareholders of the Company may from time to time engage in proxy solicitations, advance shareholder proposals or otherwise attempt to effect changes or acquire control over the Company. Campaigns by shareholders to effect changes at publicly traded companies are sometimes led by investors seeking to increase short-term shareholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. Responding to proxy contests and other actions by activist shareholders can be costly and time-consuming, disrupting the Company's operations and diverting the attention of the Company's Board of Directors and senior management from the pursuit of business strategies. As a result, shareholder campaigns could adversely affect the Company's results of operations and financial condition.

Item 1B *Unresolved Staff Comments*

None.

Item 2 *Properties*

General Information on Facilities

The net investment of the Company in property, plant and equipment was \$4.5 billion at September 30, 2016. The Exploration and Production segment comprises 24.3% of this investment, and is primarily located in California and in the Appalachian region of the United States. Approximately 64.4% of the Company's investment in net property, plant and equipment was in the Utility and Pipeline and Storage segments, whose operations are located primarily in western and central New York and northwestern Pennsylvania. The Gathering segment comprises 9.9% of the Company's investment in net property, plant and equipment, and is located in northwestern Pennsylvania. The remaining net investment in property, plant and equipment consisted of the All Other category and Corporate operations (1.4%), or \$0.1 billion. During the past five years, the Company has made additions to property, plant and equipment in order to expand its exploration and production operations in the Appalachian

region of the United States and to expand and improve transmission facilities for transportation customers in New York and Pennsylvania. Net property, plant and equipment has increased \$454 million, or 11.3%, since September 30, 2011.

The Exploration and Production segment had a net investment in property, plant and equipment of \$1.1 billion at September 30, 2016.

The Pipeline and Storage segment had a net investment of \$1.5 billion in property, plant and equipment at September 30, 2016. Transmission pipeline represents 38% of this segment's total net investment and includes 2,355 miles of pipeline utilized to move large volumes of gas throughout its service area. Storage facilities represent 16% of this segment's total net investment and consist of 31 storage fields operating at a combined working gas level of 73.4 Bcf, four of which are jointly owned and operated with other interstate gas pipeline companies, and 427 miles of pipeline. Net investment in storage facilities includes \$81.9 million of gas stored underground-noncurrent, representing the cost of the gas utilized to maintain pressure levels for normal operating purposes as well as gas maintained for system balancing and other purposes, including that needed for no-notice transportation service. The Pipeline and Storage segment has 32 compressor stations with 170,907 installed compressor horsepower that represent 26% of this segment's total net investment in property, plant and equipment.

The Gathering segment had a net investment of \$0.4 billion in property, plant and equipment at September 30, 2016. Gathering lines and related compressors comprise substantially all of this segment's total net investment, including 130 miles of lines utilized to move Appalachian production (including Marcellus Shale) to various transmission pipeline receipt points. The Gathering segment has 5 compressor stations with 46,920 installed compressor horsepower.

The Utility segment had a net investment in property, plant and equipment of \$1.4 billion at September 30, 2016. The net investment in its gas distribution network (including 14,868 miles of distribution pipeline) and its service connections to customers represent approximately 48% and 33%, respectively, of the Utility segment's net investment in property, plant and equipment at September 30, 2016.

The Pipeline and Storage segments' facilities provided the capacity to meet Supply Corporation's 2016 peak day sendout for transportation service of 2,100 MMcf, which occurred on February 12, 2016. Withdrawals from storage of 500.1 MMcf provided approximately 24% of the requirements on that day.

Company maps are included in Exhibit 99.2 of this Form 10-K and are incorporated herein by reference.

Exploration and Production Activities

The Company is engaged in the exploration for and the development of natural gas and oil reserves in California and the Appalachian region of the United States. The Company has been increasing its emphasis in the Appalachian region, primarily in the Marcellus Shale. Further discussion of oil and gas producing activities is included in Item 8, Note M - Supplementary Information for Oil and Gas Producing Activities. Note M sets forth proved developed and undeveloped reserve information for Seneca. The September 30, 2016, 2015 and 2014 reserves shown in Note M are valued using an unweighted arithmetic average of the first day of the month oil and gas prices for each month within the twelve-month period prior to the end of the reporting period. The reserves were estimated by Seneca's geologists and engineers and were audited by independent petroleum engineers from Netherland, Sewell & Associates, Inc. Note M discusses the qualifications of the Company's reservoir engineers, internal controls over the reserve estimation process and audit of the reserve estimates and changes in proved developed and undeveloped oil and natural gas reserves year over year.

Seneca's proved developed and undeveloped natural gas reserves decreased from 2,142 Bcf at September 30, 2015 to 1,675 Bcf at September 30, 2016. Extensions and discoveries of 186 Bcf were exceeded by production of 144 Bcf, downward revisions of previous estimates of 248 Bcf, and sales of minerals in place of 261 Bcf. Of the total downward gas revisions of 248 Bcf, 204 Bcf were a result of lower gas prices for Marcellus Shale and Upper Devonian reservoirs, and 74 Bcf were a result of PUD locations that were removed for reasons other than just lower gas prices, partially offset by 30 Bcf in upward revisions due to performance improvements and lease operating expense reductions. The sales of minerals in place were primarily the result of reserves that were sold

to IOG CRV-Marcellus, LLC (IOG) as part of the joint development agreement coupled with the sale of the majority of Seneca's Upper Devonian wells and associated reserves in Pennsylvania.

Seneca's proved developed and undeveloped oil reserves decreased from 33,722 Mbbl at September 30, 2015 to 29,009 Mbbl at September 30, 2016. Extensions and discoveries of 530 Mbbl were exceeded by production of 2,923 Mbbl, primarily occurring in the West Coast region, downward revisions of previous estimates of 2,247 Mbbl, and sales of minerals in place of 73 Mbbl. Downward revisions of 2,247 Mbbl were primarily a result of lower oil prices (3,900 Mbbl) partially offset by 1,653 Mbbl in upward revisions associated with performance improvements and lease operating expense reductions. The sales of minerals in place were reserves related to the aforementioned sale of Upper Devonian Wells. On a Bcfe basis, Seneca's proved developed and undeveloped reserves decreased from 2,344 Bcfe at September 30, 2015 to 1,849 Bcfe at September 30, 2016. Total revisions of previous estimates was a decrease of 262 Bcfe, primarily a result of lower oil and gas pricing.

Seneca's proved developed and undeveloped natural gas reserves increased from 1,683 Bcf at September 30, 2014 to 2,142 Bcf at September 30, 2015. This increase was attributed to extensions and discoveries of 633 Bcf, partially offset by production of 140 Bcf and negative revisions of previous estimates of 34 Bcf. Total downward gas revisions of 34 Bcf were primarily a result of negative revisions due to lower gas prices of 38 Bcf primarily in the Marcellus Shale and Upper Devonian reservoirs, coupled with the removal of 38 Bcf of PUD reserves in the Marcellus Shale in Tioga County as the Company had no near term plans to develop these reserves as it employed capital elsewhere. Partially offsetting these negative revisions were a 16 Bcf upward revision to Marcellus PUD reserves transferred to proved developed reserves and a 26 Bcf upward revision to remaining Marcellus PUD reserves.

Seneca's proved developed and undeveloped oil reserves decreased from 38,477 Mbbl at September 30, 2014 to 33,722 Mbbl at September 30, 2015. Extensions and discoveries of 533 Mbbl were exceeded by production of 3,034 Mbbl, primarily occurring in the West Coast region, and downward revisions of previous estimates of 2,254 Mbbl. Downward revisions of 2,254 Mbbl were primarily a result of lower oil prices (1,861 Mbbl) as well as removing 279 Mbbl of PUD reserves at the North Lost Hills field in the Tulare reservoir as the Company had no near term plans to develop these reserves as it employed capital elsewhere. On a Bcfe basis, Seneca's proved developed and undeveloped reserves increased from 1,914 Bcfe at September 30, 2014 to 2,344 Bcfe at September 30, 2015. Total revisions of previous estimates was a decrease of 48 Bcfe.

At September 30, 2016, the Company's Exploration and Production segment had delivery commitments of 2,152 Bcfe (mostly natural gas as commitments for crude oil, gasoline, butane and propane were insignificant). The Company expects to meet those commitments through proved reserves, including the future development of reserves that are currently classified as proved undeveloped reserves.

The following is a summary of certain oil and gas information taken from Seneca's records. All monetary amounts are expressed in U.S. dollars.

Production

	For The Year Ended September 30		
	2016	2015	2014
United States			
<u>Appalachian Region</u>			
Average Sales Price per Mcf of Gas	\$ 1.94 (1)	\$ 2.48 (1)	\$ 3.55 (1)
Average Sales Price per Barrel of Oil	\$ 52.15	\$ 57.44	\$ 96.34
Average Sales Price per Mcf of Gas (after hedging)	\$ 3.01	\$ 3.35	\$ 3.49
Average Sales Price per Barrel of Oil (after hedging)	\$ 52.15	\$ 57.44	\$ 96.34
Average Production (Lifting) Cost per Mcf Equivalent of Gas and Oil Produced	\$ 0.73 (1)	\$ 0.81 (1)	\$ 0.74 (1)
Average Production per Day (in MMcf Equivalent of Gas and Oil Produced)	385 (1)	374 (1)	382 (1)
<u>West Coast Region</u>			
Average Sales Price per Mcf of Gas	\$ 3.25	\$ 4.11	\$ 6.75
Average Sales Price per Barrel of Oil	\$ 35.26	\$ 51.37	\$ 98.25
Average Sales Price per Mcf of Gas (after hedging)	\$ 3.25	\$ 4.52	\$ 6.65
Average Sales Price per Barrel of Oil (after hedging)	\$ 57.97	\$ 70.49	\$ 95.54
Average Production (Lifting) Cost per Mcf Equivalent of Gas and Oil Produced	\$ 2.47	\$ 2.69	\$ 2.96
Average Production per Day (in MMcf Equivalent of Gas and Oil Produced)	56	58	58
Total Company			
Average Sales Price per Mcf of Gas	\$ 1.97	\$ 2.51	\$ 3.62
Average Sales Price per Barrel of Oil	\$ 35.42	\$ 51.43	\$ 98.23
Average Sales Price per Mcf of Gas (after hedging)	\$ 3.02	\$ 3.38	\$ 3.56
Average Sales Price per Barrel of Oil (after hedging)	\$ 57.91	\$ 70.36	\$ 95.55
Average Production (Lifting) Cost per Mcf Equivalent of Gas and Oil Produced	\$ 0.96	\$ 1.06	\$ 1.03
Average Production per Day (in MMcf Equivalent of Gas and Oil Produced)	441	432	440

(1) The Marcellus Shale fields (which exceed 15% of total reserves at September 30, 2016, 2015 and 2014) contributed 372 MMcfe, 357 MMcfe and 361 MMcfe of daily production in 2016, 2015 and 2014, respectively. The average sales price (per Mcfe) was \$1.94 (\$3.01 after hedging) in 2016, \$2.48 (\$3.35 after hedging) in 2015 and \$3.53 (\$3.47 after hedging) in 2014. The average lifting costs (per Mcfe) were \$0.72 in 2016, \$0.79 in 2015 and \$0.72 in 2014.

Productive Wells

	Appalachian Region		West Coast Region		Total Company	
	Gas	Oil	Gas	Oil	Gas	Oil
At September 30, 2016						
Productive Wells — Gross	461	—	—	2,211	461	2,211
Productive Wells — Net	369	—	—	2,165	369	2,165

Developed and Undeveloped Acreage

At September 30, 2016	Appalachian Region	West Coast Region	Total Company
Developed Acreage			
— Gross	546,810	23,269	570,079
— Net	537,182	21,531	558,713
Undeveloped Acreage			
— Gross	361,347	4,518	365,865
— Net	343,953	690	344,643
Total Developed and Undeveloped Acreage			
— Gross	908,157	27,787	935,944
— Net	881,135	22,221	903,356

As of September 30, 2016, the aggregate amount of gross undeveloped acreage expiring in the next three years and thereafter are as follows: 7,642 acres in 2017 (5,082 net acres), 2,183 acres in 2018 (1,601 net acres), 5,572 acres in 2019 (5,426 net acres) and 39,469 acres thereafter (34,503 net acres). The remaining 310,999 gross acres (298,031 net acres) represent non-expiring oil and gas rights owned by the Company. Of the acreage that is currently scheduled to expire in 2017, 2018 and 2019, Seneca has 27 Bcfe of proved undeveloped gas reserves, with 27 Bcfe subject to lease expirations in 2017. This total represents approximately 5% of Seneca's proved undeveloped reserves in the Marcellus Shale. Seneca intends to develop these reserves prior to the expiration of the leases and/or extend/renew as part of its management approved development plan.

Drilling Activity

For the Year Ended September 30	Productive			Dry		
	2016	2015	2014	2016	2015	2014
United States						
<u>Appalachian Region</u>						
Net Wells Completed						
— Exploratory	1.000	3.000	4.832	—	—	—
— Development	31.800	49.000	53.000	1.000	2.000	2.000
<u>West Coast Region</u>						
Net Wells Completed						
— Exploratory	—	—	1.533	—	—	—
— Development	25.000	45.000	84.720	—	1.000	1.000
Total Company						
Net Wells Completed						
— Exploratory	1.000	3.000	6.365	—	—	—
— Development	56.800	94.000	137.720	1.000	3.000	3.000

Present Activities

At September 30, 2016	Appalachian Region	West Coast Region	Total Company
Wells in Process of Drilling(1)			
— Gross	93.000	—	93.000
— Net	68.900	—	68.900

(1) Includes wells awaiting completion.

Item 3 *Legal Proceedings*

On August 19, 2016, the PaDEP sent a draft Consent Assessment of Civil Penalty (CACP) to Seneca, offering to settle various alleged violations of the Pennsylvania Oil and Gas Act, Clean Streams Law and Solid Waste Management Act, as well as PaDEP rules and regulations regarding erosion and sedimentation control relating to Seneca's drilling activities. The amount of the penalty sought by the PaDEP is not material to the Company. The draft CACP addresses alleged environmental and administrative violations identified by PaDEP during inspections of 23 well sites and facilities in three counties over the course of nearly three years. The Company disputes many of the alleged violations and will vigorously defend its position in negotiations with the PaDEP.

For a discussion of various environmental and other matters, refer to Part II, Item 7, MD&A and Item 8 at Note I — Commitments and Contingencies.

Item 4 *Mine Safety Disclosures*

Not Applicable.

PART II**Item 5 *Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

Information regarding the market for the Company's common equity and related stockholder matters appears under Item 12 at Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, Item 8 at Note E — Capitalization and Short-Term Borrowings, and at Note L — Market for Common Stock and Related Shareholder Matters (unaudited).

On July 1, 2016, the Company issued a total of 4,800 unregistered shares of Company common stock to the eight non-employee directors of the Company then serving on the Board of Directors of the Company, 600 shares to each such director. All of these unregistered shares were issued under the Company's 2009 Non-Employee Director Equity Compensation Plan as partial consideration for such directors' services during the quarter ended September 30, 2016. These transactions were exempt from registration under Section 4(a)(2) of the Securities Act of 1933, as transactions not involving a public offering.

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased(a)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Share Repurchase Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under Share Repurchase Plans or Programs(b)
July 1-31, 2016	621	\$ 56.90	—	6,971,019
Aug. 1-31, 2016	25,213	\$ 57.90	—	6,971,019
Sept. 1-30, 2016	3,563	\$ 56.57	—	6,971,019
Total	29,397	\$ 57.72	—	6,971,019

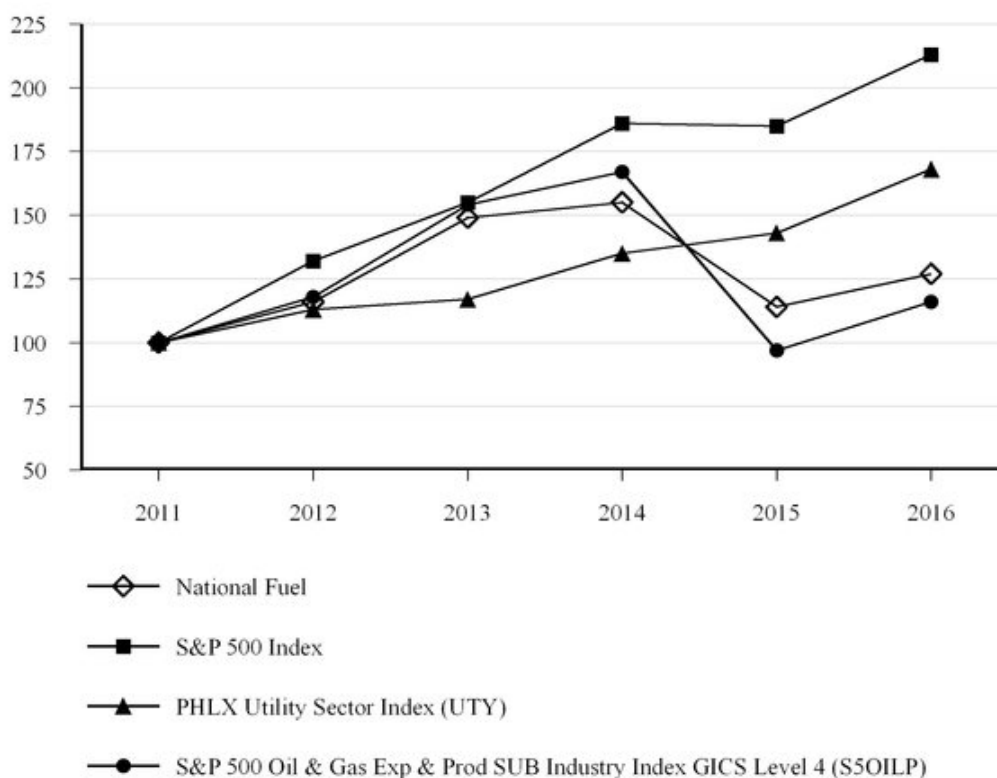
(a) Represents shares of common stock of the Company tendered to the Company by holders of stock options, SARs, restricted stock units or shares of restricted stock for the payment of option exercise prices or applicable withholding taxes. During the quarter ended September 30, 2016, the Company did not purchase any shares of its common stock pursuant to its publicly announced share repurchase program.

(b) In September 2008, the Company's Board of Directors authorized the repurchase of eight million shares of the Company's common stock. The repurchase program has no expiration date. The Company, however, stopped repurchasing shares after September 17, 2008. Since that time, the Company has increased its emphasis on Marcellus Shale development and pipeline expansion. As such, the Company does not anticipate repurchasing any shares in the near future.

Performance Graph

The following graph compares the Company's common stock performance with the performance of the S&P 500 Index, the PHLX Utility Sector Index and the S&P 500 Oil & Gas Exploration & Production SUB Industry Index GICS Level 4 for the period September 30, 2011 through September 30, 2016. The graph assumes that the value of the investment in the Company's common stock and in each index was \$100 on September 30, 2011 and that all dividends were reinvested.

**Comparison of Five-Year Cumulative Total Returns
Fiscal Years 2012 - 2016**



	2011	2012	2013	2014	2015	2016
National Fuel	\$100	\$116	\$149	\$155	\$114	\$127
S&P 500 Index	\$100	\$132	\$155	\$186	\$185	\$213
PHLX Utility Sector Index (UTY)	\$100	\$113	\$117	\$135	\$143	\$168
S&P 500 Oil & Gas Exp & Prod SUB Industry Index GICS Level 4 (S5OILP)	\$100	\$118	\$154	\$167	\$97	\$116

Source: Bloomberg

The performance graph above is furnished and not filed for purposes of Section 18 of the Securities Exchange Act of 1934 and will not be incorporated by reference into any registration statement filed under the Securities Act of 1933 unless specifically identified therein as being incorporated therein by reference. The performance graph is not soliciting material subject to Regulation 14A.

Item 6 Selected Financial Data

	Year Ended September 30				
	2016	2015	2014	2013	2012
	(Thousands, except per share amounts and number of registered shareholders)				
Summary of Operations					
Operating Revenues:					
Utility and Energy Marketing Revenues	\$ 624,602	\$ 860,618	\$ 1,103,149	\$ 942,309	\$ 891,097
Exploration and Production and Other Revenues	611,766	696,709	808,595	707,734	562,740
Pipeline and Storage and Gathering Revenues	216,048	203,586	201,337	179,508	173,016
	1,452,416	1,760,913	2,113,081	1,829,551	1,626,853
Operating Expenses:					
Purchased Gas	147,982	349,984	605,838	460,432	415,589
Operation and Maintenance:					
Utility and Energy Marketing	192,512	203,249	196,534	180,997	178,764
Exploration and Production and Other	160,201	184,024	188,622	175,014	142,799
Pipeline and Storage and Gathering	88,801	82,730	77,922	86,079	79,834
Property, Franchise and Other Taxes	81,714	89,564	90,711	82,431	90,288
Depreciation, Depletion and Amortization	249,417	336,158	383,781	326,760	271,530
Impairment of Oil and Gas Producing Properties	948,307	1,126,257	—	—	—
	1,868,934	2,371,966	1,543,408	1,311,713	1,178,804
Operating Income (Loss)	(416,518)	(611,053)	569,673	517,838	448,049
Other Income (Expense):					
Other Income	9,820	8,039	9,461	4,697	5,133
Interest Income	4,235	3,922	4,170	4,335	3,689
Interest Expense on Long-Term Debt	(117,347)	(95,916)	(90,194)	(90,273)	(82,002)
Other Interest Expense	(3,697)	(3,555)	(4,083)	(3,838)	(4,238)
Income (Loss) Before Income Taxes	(523,507)	(698,563)	489,027	432,759	370,631
Income Tax Expense (Benefit)	(232,549)	(319,136)	189,614	172,758	150,554
Net Income (Loss) Available for Common Stock	\$ (290,958)	\$ (379,427)	\$ 299,413	\$ 260,001	\$ 220,077
Per Common Share Data					
Basic Earnings (Loss) per Common Share	\$ (3.43)	\$ (4.50)	\$ 3.57	\$ 3.11	\$ 2.65
Diluted Earnings (Loss) per Common Share	\$ (3.43)	\$ (4.50)	\$ 3.52	\$ 3.08	\$ 2.63
Dividends Declared	\$ 1.60	\$ 1.56	\$ 1.52	\$ 1.48	\$ 1.44
Dividends Paid	\$ 1.59	\$ 1.55	\$ 1.51	\$ 1.47	\$ 1.43
Dividend Rate at Year-End	\$ 1.62	\$ 1.58	\$ 1.54	\$ 1.50	\$ 1.46
At September 30:					
Number of Registered Shareholders	11,751	12,147	12,654	13,215	13,800

	Year Ended September 30				
	2016	2015	2014	2013	2012
(Thousands, except per share amounts and number of registered shareholders)					
Net Property, Plant and Equipment					
Exploration and Production	\$ 1,083,804	\$ 2,126,265	\$ 2,897,744	\$ 2,600,448	\$ 2,273,030
Pipeline and Storage	1,463,541	1,387,516	1,187,924	1,074,079	1,069,070
Gathering	439,660	400,409	292,793	161,111	110,269
Utility	1,403,286	1,351,504	1,297,179	1,246,943	1,217,431
Energy Marketing	1,745	1,989	2,070	2,002	1,530
All Other	59,054	60,404	61,236	62,554	63,245
Corporate	3,392	3,808	4,145	4,589	5,228
Total Net Plant	\$ 4,454,482	\$ 5,331,895	\$ 5,743,091	\$ 5,151,726	\$ 4,739,803
Total Assets	\$ 5,636,387	\$ 6,564,939	\$ 6,687,717	\$ 6,125,618	\$ 5,914,939
Capitalization					
Comprehensive Shareholders' Equity	\$ 1,527,004	\$ 2,025,440	\$ 2,410,683	\$ 2,194,729	\$ 1,960,095
Long-Term Debt, Net of Unamortized Discount and Debt Issuance Costs	2,086,252	2,084,009	1,637,443	1,635,630	1,139,552
Total Capitalization	\$ 3,613,256	\$ 4,109,449	\$ 4,048,126	\$ 3,830,359	\$ 3,099,647

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

OVERVIEW

The Company is a diversified energy company engaged principally in the production, gathering, transportation, distribution and marketing of natural gas. The Company operates an integrated business, with assets centered in western New York and Pennsylvania, being utilized for, and benefiting from, the production and transportation of natural gas from the Appalachian basin. Current development activities are focused in the Marcellus Shale. The common geographic footprint of the Company's subsidiaries enables them to share management, labor, facilities and support services across various businesses and pursue coordinated projects designed to produce and transport natural gas from the Marcellus Shale to markets in Canada and the eastern United States. The Company also develops and produces oil reserves, primarily in California. The Company reports financial results for five business segments. Refer to Item 1, Business, for a more detailed description of each of the segments. This Item 7, MD&A, provides information concerning:

1. The critical accounting estimates of the Company;
2. Changes in revenues and earnings of the Company under the heading, "Results of Operations;"
3. Operating, investing and financing cash flows under the heading "Capital Resources and Liquidity;"
4. Off-Balance Sheet Arrangements;
5. Contractual Obligations; and
6. Other Matters, including: (a) 2016 and projected 2017 funding for the Company's pension and other post-retirement benefits; (b) disclosures and tables concerning market risk sensitive instruments; (c) rate and regulatory matters in the Company's New York, Pennsylvania and FERC-regulated jurisdictions; (d) environmental matters; and (e) new authoritative accounting and financial reporting guidance.

The information in MD&A should be read in conjunction with the Company's financial statements in Item 8 of this report.

The Company continues to develop its natural gas reserves in the Marcellus Shale, but at a slower pace than previous years given the current low commodity price environment. The Marcellus Shale is a Middle Devonian-age geological shale formation that is present nearly a mile or more below the surface in the Appalachian region of the United States, including much of Pennsylvania and southern New York. The Company controls the natural gas interests associated with approximately 785,000 net acres within the Marcellus Shale area, with a majority of the interests held in fee, carrying no royalty and no lease expirations. In March 2016, the Company reduced its Marcellus Shale development program to one drilling rig, down from three drilling rigs at the beginning of fiscal 2016. The Company also executed a joint development agreement with IOG CRV-Marcellus, LLC (IOG) to develop Marcellus Shale natural gas assets located in Elk, McKean and Cameron counties in north-central Pennsylvania. The original joint development agreement with IOG was executed on December 1, 2015 and subsequently extended on June 13, 2016. Under the terms of the extended agreement, Seneca, the Company's exploration and production subsidiary, and IOG will jointly participate in a program to develop up to 75 Marcellus wells, with Seneca serving as program operator. The extended joint development agreement gives IOG the option to participate in an additional 7-well Marcellus pad that is expected to be completed before December 31, 2017, which, if exercised, would increase the maximum number of joint development wells to 82. Under the original joint development agreement, IOG had committed to develop 42 Marcellus wells. IOG will hold an 80% working interest in all of the joint development wells. In total, IOG is expected to fund approximately \$325 million for its 80% working interest in the 75 joint development wells. As the fee-owner of the property's mineral rights, Seneca retains a 7.5% royalty interest and the remaining 20% working interest (26% net revenue interest) in 56 of the joint development wells. In the remaining 19 wells, Seneca retains a 20% working and net revenue interest. Seneca's working interest under the agreement will increase to 85% after IOG achieves a 15% internal rate of return. As of September 30, 2016, Seneca had received \$137.3 million of cash and had recorded a \$19.6 million receivable in recognition of IOG funding that is due to Seneca for costs previously incurred to develop a portion of the first 75 joint development wells.

On June 30, 2016, Seneca sold the majority of its Upper Devonian wells in Pennsylvania. While the proceeds from the sale were not significant, it did result in a \$58.4 million reduction of its Asset Retirement Obligation for the year ended September 30, 2016.

For the year ended September 30, 2016, the Company experienced a loss of \$291.0 million compared to a loss of \$379.4 million for the year ended September 30, 2015. The losses were driven largely by impairment charges of \$948.3 million (\$550.0 million after-tax) and \$1.1 billion (\$650.2 million after-tax) recorded in the Exploration and Production segment during the years ended September 30, 2016 and September 30, 2015, respectively. In the Company's Exploration and Production segment, oil and gas property acquisition, exploration and development costs are capitalized under the full cost method of accounting. Such costs are subject to a quarterly ceiling test prescribed by SEC Regulation S-X Rule 4-10 that determines a limit, or ceiling, on the amount of property acquisition, exploration and development costs that can be capitalized. Due to significant declines in crude oil and natural gas commodity prices over the previous twelve months, the book value of the Company's oil and gas properties exceeded the ceiling at the end of each of the four quarters during fiscal 2016, resulting in the impairment charges mentioned above. For further discussion of the ceiling test and a sensitivity analysis concerning changes in crude oil and natural gas commodity prices and their impact on the ceiling test, refer to the Critical Accounting Estimates section below. For further discussion of the Company's earnings, refer to the Results of Operations section below.

On September 9, 2016, the Company entered into a Third Amended and Restated Credit Agreement (Credit Agreement) with a syndicate of 14 banks. This Credit Agreement provides a \$750.0 million multi-year unsecured committed revolving credit facility through December 5, 2019. The Credit Agreement also provides a \$500.0 million 364-day unsecured committed revolving facility with 11 of the 14 banks through September 8, 2017.

Under the Company's existing 1974 indenture covenants, given the significant ceiling test impairments recorded during the years ended September 30, 2016 and September 30, 2015, and assuming no further significant ceiling test impairments, the Company expects to be precluded from issuing additional long-term unsecured indebtedness until the second half of fiscal 2017. However, the Company does not anticipate a need for the issuance of additional long-term debt during the first half of fiscal 2017. The Company expects to use cash from operations and, if necessary, short-term borrowings to meet its capital expenditure needs for at least the first half of fiscal

2017. The Company does not have any long-term debt maturing until fiscal 2018. The 1974 indenture would not preclude the Company from issuing new long-term debt to replace maturing long-term debt.

CRITICAL ACCOUNTING ESTIMATES

The Company has prepared its consolidated financial statements in conformity with GAAP. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. In the event estimates or assumptions prove to be different from actual results, adjustments are made in subsequent periods to reflect more current information. The following is a summary of the Company's most critical accounting estimates, which are defined as those estimates whereby judgments or uncertainties could affect the application of accounting policies and materially different amounts could be reported under different conditions or using different assumptions. For a complete discussion of the Company's significant accounting policies, refer to Item 8 at Note A — Summary of Significant Accounting Policies.

Oil and Gas Exploration and Development Costs. In the Company's Exploration and Production segment, oil and gas property acquisition, exploration and development costs are capitalized under the full cost method of accounting. Under this accounting methodology, all costs associated with property acquisition, exploration and development activities are capitalized, including internal costs directly identified with acquisition, exploration and development activities. The internal costs that are capitalized do not include any costs related to production, general corporate overhead, or similar activities. The Company does not recognize any gain or loss on the sale or other disposition of oil and gas properties unless the gain or loss would significantly alter the relationship between capitalized costs and proved reserves of oil and gas attributable to a cost center.

Proved reserves are estimated quantities of reserves that, based on geologic and engineering data, appear with reasonable certainty to be producible under existing economic and operating conditions. Such estimates of proved reserves are inherently imprecise and may be subject to substantial revisions as a result of numerous factors including, but not limited to, additional development activity, evolving production history and continual reassessment of the viability of production under varying economic conditions. The estimates involved in determining proved reserves are critical accounting estimates because they serve as the basis over which capitalized costs are depleted under the full cost method of accounting (on a units-of-production basis). Unproved properties are excluded from the depletion calculation until proved reserves are found or it is determined that the unproved properties are impaired. All costs related to unproved properties are reviewed quarterly to determine if impairment has occurred. The amount of any impairment is transferred to the pool of capitalized costs being amortized.

In addition to depletion under the units-of-production method, proved reserves are a major component in the SEC full cost ceiling test. The full cost ceiling test is an impairment test prescribed by SEC Regulation S-X Rule 4-10. The ceiling test, which is performed each quarter, determines a limit, or ceiling, on the amount of property acquisition, exploration and development costs that can be capitalized. The ceiling under this test represents (a) the present value of estimated future net cash flows, excluding future cash outflows associated with settling asset retirement obligations that have been accrued on the balance sheet, using a discount factor of 10%, which is computed by applying an unweighted arithmetic average of the first day of the month oil and gas prices for each month within the twelve-month period prior to the end of the reporting period (as adjusted for hedging) to estimated future production of proved oil and gas reserves as of the date of the latest balance sheet, less estimated future expenditures, plus (b) the cost of unevaluated properties not being depleted, less (c) income tax effects related to the differences between the book and tax basis of the properties. The estimates of future production and future expenditures are based on internal budgets that reflect planned production from current wells and expenditures necessary to sustain such future production. The amount of the ceiling can fluctuate significantly from period to period because of additions to or subtractions from proved reserves and significant fluctuations in oil and gas prices. The ceiling is then compared to the capitalized cost of oil and gas properties less accumulated depletion and related deferred income taxes. If the capitalized costs of oil and gas properties less accumulated depletion and related deferred taxes exceeds the ceiling at the end of any fiscal quarter, a non-cash impairment charge must be recorded to write down the book value of the reserves to their present value. This non-cash impairment cannot be reversed at a later date if the ceiling increases. It should also be noted that a non-cash impairment to write down

the book value of the reserves to their present value in any given period causes a reduction in future depletion expense. The book value of the Company's oil and gas properties exceeded the ceiling at September 30, 2016 as well as June 30, 2016, March 31, 2016 and December 31, 2015, resulting in cumulative impairment charges of \$948.3 million (\$550.0 million after-tax) for 2016. The 12-month average of the first day of the month price for crude oil for each month during 2016, based on posted Midway Sunset prices, was \$35.36 per Bbl. The 12-month average of the first day of the month price for natural gas for each month during 2016, based on the quoted Henry Hub spot price for natural gas, was \$2.28 per MMBtu. (Note — Because actual pricing of the Company's various producing properties varies depending on their location and hedging, the actual various prices received for such production is utilized to calculate the ceiling, rather than the Midway Sunset and Henry Hub prices, which are only indicative of 12-month average prices for 2016.) The following table illustrates the sensitivity of the ceiling test calculation to commodity price changes, specifically showing the additional impairment that the Company would have recorded at September 30, 2016 if natural gas prices were \$0.25 per MMBtu lower than the average used at September 30, 2016, the additional impairment the Company would have recorded at September 30, 2016 if crude oil prices were \$5 per Bbl lower than the average used at September 30, 2016, and the additional impairment that the Company would have recorded at September 30, 2016 if both natural gas prices and crude oil prices were \$0.25 per MMBtu and \$5 per Bbl lower than the average prices used at September 30, 2016 (all amounts are presented after-tax). These calculated amounts are based solely on price changes and do not take into account any other changes to the ceiling test calculation, including, among others, changes in reserve quantities and future cost estimates.

Ceiling Testing Sensitivity to Commodity Price Changes

<i>(Millions)</i>	\$0.25/MMBtu Decrease in Natural Gas Prices \$5.00/Bbl Decrease in Crude Oil Prices \$0.25/MMBtu Decrease in Natural Gas Prices and \$5.00/Bbl Decrease in Crude Oil Prices		
Calculated Impairment under Sensitivity Analysis	\$ 128.1	\$ 57.9	\$ 166.9
Actual Impairment Recorded at September 30, 2016	19.0	19.0	19.0
Additional Impairment	\$ 109.1	\$ 38.9	\$ 147.9

It is difficult to predict what factors could lead to future impairments under the SEC's full cost ceiling test. As discussed above, fluctuations in or subtractions from proved reserves and significant fluctuations in oil and gas prices have an impact on the amount of the ceiling at any point in time.

In accordance with the current authoritative guidance for asset retirement obligations, the Company records an asset retirement obligation for plugging and abandonment costs associated with the Exploration and Production segment's crude oil and natural gas wells and capitalizes such costs in property, plant and equipment (i.e. the full cost pool). Under the current authoritative guidance for asset retirement obligations, since plugging and abandonment costs are already included in the full cost pool, the units-of-production depletion calculation excludes from the depletion base any estimate of future plugging and abandonment costs that are already recorded in the full cost pool.

As discussed above, the full cost method of accounting provides a ceiling to the amount of costs that can be capitalized in the full cost pool. In accordance with current authoritative guidance, the future cash outflows associated with plugging and abandoning wells are excluded from the computation of the present value of estimated future net revenues for purposes of the full cost ceiling calculation.

Regulation. The Company is subject to regulation by certain state and federal authorities. The Company, in its Utility and Pipeline and Storage segments, has accounting policies which conform to the FASB authoritative guidance regarding accounting for certain types of regulations, and which are in accordance with the accounting requirements and ratemaking practices of the regulatory authorities. The application of these accounting principles for certain types of rate-regulated activities provide that certain actual or anticipated costs that would otherwise

be charged to expense can be deferred as regulatory assets, based on the expected recovery from customers in future rates. Likewise, certain actual or anticipated credits that would otherwise reduce expense can be deferred as regulatory liabilities, based on the expected flowback to customers in future rates. Management's assessment of the probability of recovery or pass through of regulatory assets and liabilities requires judgment and interpretation of laws and regulatory commission orders. If, for any reason, the Company ceases to meet the criteria for application of regulatory accounting treatment for all or part of its operations, the regulatory assets and liabilities related to those portions ceasing to meet such criteria would be eliminated from the balance sheet and included in the income statement for the period in which the discontinuance of regulatory accounting treatment occurs. Such amounts would be classified as an extraordinary item. For further discussion of the Company's regulatory assets and liabilities, refer to Item 8 at Note C — Regulatory Matters.

Accounting for Derivative Financial Instruments. The Company uses a variety of derivative financial instruments to manage a portion of the market risk associated with fluctuations in the price of natural gas and crude oil in its Exploration and Production and Energy Marketing segments. These instruments are categorized as price swap agreements and futures contracts. In accordance with the authoritative guidance for derivative instruments and hedging activities, the Company primarily accounts for these instruments as effective cash flow hedges or fair value hedges. In addition, the Company also enters into foreign exchange forward contracts to manage the risk of currency fluctuations associated with transportation costs denominated in Canadian currency in the Exploration and Production segment. These instruments are accounted for as cash flow hedges. Gains or losses associated with the derivative financial instruments that are accounted for as cash flow or fair value hedges are matched with gains or losses resulting from the underlying physical transaction that is being hedged. To the extent that such derivative financial instruments would ever be deemed to be ineffective based on effectiveness testing, mark-to-market gains or losses from such derivative financial instruments would be recognized in the income statement without regard to an underlying physical transaction. Refer to the "Market Risk Sensitive Instruments" section below for further discussion of the Company's derivative financial instruments and refer to Item 8 at Note F— Fair Value Measurements for discussion of the determination of fair value for derivative financial instruments.

Pension and Other Post-Retirement Benefits. The amounts reported in the Company's financial statements related to its pension and other post-retirement benefits are determined on an actuarial basis, which uses many assumptions in the calculation of such amounts. These assumptions include the discount rate, the expected return on plan assets, the rate of compensation increase and, for other post-retirement benefits, the expected annual rate of increase in per capita cost of covered medical and prescription benefits. The Company utilizes the Mercer Yield Curve Above Mean Model to determine the discount rate. The yield curve is a spot rate yield curve that provides a zero-coupon interest rate for each year into the future. Each year's anticipated benefit payments are discounted at the associated spot interest rate back to the measurement date. The discount rate is then determined based on the spot interest rate that results in the same present value when applied to the same anticipated benefit payments. In determining the spot rates, the model will exclude coupon interest rates that are in the lower 50th percentile based on the assumption that the Company would not utilize more expensive (i.e. lower yield) instruments to settle its liabilities. The expected return on plan assets assumption used by the Company reflects the anticipated long-term rate of return on the plan's current and future assets. The Company utilizes historical investment data, projected capital market conditions, and the plan's target asset class and investment manager allocations to set the assumption regarding the expected return on plan assets. Changes in actuarial assumptions and actuarial experience, including deviations between actual versus expected return on plan assets, could have a material impact on the amount of pension and post-retirement benefit costs and funding requirements experienced by the Company. However, the Company expects to recover a substantial portion of its net periodic pension and other post-retirement benefit costs attributable to employees in its Utility and Pipeline and Storage segments in accordance with the applicable regulatory commission authorization, subject to applicable accounting requirements for rate-regulated activities, as discussed above under "Regulation."

Changes in actuarial assumptions and actuarial experience could also have an impact on the benefit obligation and the funded status related to the Company's pension and other post-retirement benefits and could impact the Company's equity. For example, the discount rate used to determine benefit obligations of the Company's other post-retirement benefits changed from 4.50% in 2015 to 3.70% in 2016. The change in the discount rate from 2015 to 2016 increased the accumulated post-retirement benefit obligation by \$49.4 million. The discount rate used to determine benefit obligations of the Retirement Plan changed from 4.25% in 2015 to 3.60% in 2016. The

change in the discount rate from 2015 to 2016 increased the Retirement Plan projected benefit obligation by \$78.5 million. Other examples include actual versus expected return on plan assets, which has an impact on the funded status of the plans, and actual versus expected benefit payments, which has an impact on the pension plan projected benefit obligation and the accumulated post-retirement benefit obligation. For 2016, the actual return on plan assets was higher than the expected return, which resulted in an increase to the funded status of the Retirement Plan (\$27.6 million) as well as an increase to the funded status of the VEBA trusts and 401(h) accounts (\$5.9 million). The actual versus expected benefit payments for 2016 caused a decrease of \$2.0 million to the accumulated post-retirement benefit obligation. In calculating the projected benefit obligation for the Retirement Plan and the accumulated post-retirement obligation, the actuary takes into account the average remaining service life of active participants. The average remaining service life of active participants is 7 years for the Retirement Plan and 6 years for those eligible for other post-retirement benefits. For further discussion of the Company's pension and other post-retirement benefits, refer to Other Matters in this Item 7, which includes a discussion of funding for the current year, and to Item 8 at Note H — Retirement Plan and Other Post Retirement Benefits.

RESULTS OF OPERATIONS

EARNINGS

2016 Compared with 2015

The Company recorded a loss of \$291.0 million in 2016 compared with a loss of \$379.4 million in 2015. The reduction in loss is primarily the result of lower losses in the Exploration and Production segment and the Corporate category. The Utility segment, Pipeline and Storage segment, Energy Marketing segment and Gathering segment experienced a decline in earnings, offset by higher earnings in the All Other category. In the discussion that follows, all amounts used in the earnings discussions are after-tax amounts, unless otherwise noted. Earnings were impacted by the following events in 2016 and 2015:

2016 Events

- Non-cash impairment charges of \$948.3 million (\$550.0 million after tax) recorded during 2016 for the Exploration and Production segment's oil and gas producing properties.
- Joint development agreement professional fees of \$4.6 million recorded in the Exploration and Production segment. The joint development agreement professional fees incurred were related to professional services associated with the Marcellus Shale drilling joint development agreement with IOG executed on December 1, 2015 and subsequently extended on June 13, 2016.

2015 Events

- Non-cash impairment charges of \$1.1 billion (\$650.2 million after tax) recorded during 2015 for the Exploration and Production segment's oil and gas producing properties.
- A \$4.7 million reversal of stock-based compensation expense related to performance based restricted stock units since performance conditions, which do not include any market conditions, were not met. The \$4.7 million was allocated across the Exploration and Production segment, Pipeline and Storage segment, Utility segment and the All Other and Corporate category.

2015 Compared with 2014

The Company recorded a loss of \$379.4 million in 2015 compared with earnings of \$299.4 million in 2014. The decrease in earnings is primarily the result of a loss recognized in the Exploration and Production segment. Lower earnings in the Gathering segment and Utility segment, as well as losses in the Corporate category and All Other category, also contributed to the decrease. Higher earnings in the Pipeline and Storage segment and the Energy Marketing segment partially offset these decreases. Earnings were impacted by the 2015 event discussed above and the following event in 2014:

2014 Event

- A \$3.6 million death benefit gain on life insurance proceeds recorded in the Corporate category.

Earnings (Loss) by Segment

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Exploration and Production	\$ (452,842)	\$ (556,974)	\$ 121,569
Pipeline and Storage	76,610	80,354	77,559
Gathering	30,499	31,849	32,709
Utility	50,960	63,271	64,059
Energy Marketing	4,348	7,766	6,631
Total Reported Segments	(290,425)	(373,734)	302,527
All Other	778	(2)	1,160
Corporate	(1,311)	(5,691)	(4,274)
Total Consolidated	<u>\$ (290,958)</u>	<u>\$ (379,427)</u>	<u>\$ 299,413</u>

EXPLORATION AND PRODUCTION

Revenues

Exploration and Production Operating Revenues

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Gas (after Hedging)	\$ 433,357	\$ 471,657	\$ 506,491
Oil (after Hedging)	169,263	213,488	290,030
Gas Processing Plant	2,411	2,891	4,831
Other	2,082	5,405	2,744
Operating Revenues	<u>\$ 607,113</u>	<u>\$ 693,441</u>	<u>\$ 804,096</u>

Production

	Year Ended September 30		
	2016	2015	2014
Gas Production (MMcf)			
Appalachia	140,457	136,404	139,097
West Coast	3,090	3,159	3,210
Total Production	<u>143,547</u>	<u>139,563</u>	<u>142,307</u>
Oil Production (Mbbl)			
Appalachia	28	30	31
West Coast	2,895	3,004	3,005
Total Production	<u>2,923</u>	<u>3,034</u>	<u>3,036</u>

Average Prices

	Year Ended September 30		
	2016	2015	2014
Average Gas Price/Mcf			
Appalachia	\$ 1.94	\$ 2.48	\$ 3.55
West Coast	\$ 3.25	\$ 4.11	\$ 6.75
Weighted Average	\$ 1.97	\$ 2.51	\$ 3.62
Weighted Average After Hedging(1)	\$ 3.02	\$ 3.38	\$ 3.56
Average Oil Price/Barrel (Bbl)			
Appalachia	\$ 52.15	\$ 57.44	\$ 96.34
West Coast	\$ 35.26	\$ 51.37	\$ 98.25
Weighted Average	\$ 35.42	\$ 51.43	\$ 98.23
Weighted Average After Hedging(1)	\$ 57.91	\$ 70.36	\$ 95.55

(1) Refer to further discussion of hedging activities below under “Market Risk Sensitive Instruments” and in Note G — Financial Instruments in Item 8 of this report.

2016 Compared with 2015

Operating revenues for the Exploration and Production segment decreased \$86.3 million in 2016 as compared with 2015. Gas production revenue after hedging decreased \$38.3 million primarily due to a \$0.36 per Mcf decrease in the weighted average price of gas after hedging partially offset by an increase in gas production. Oil production revenue after hedging decreased \$44.2 million due to a \$12.45 per Bbl decrease in the weighted average price of oil after hedging coupled with a decrease in crude oil production. In addition, other revenue decreased \$3.3 million primarily due to the positive impact of mark-to-market adjustments related to hedging ineffectiveness that occurred during the year ended September 30, 2015, which did not recur during the year ended September 30, 2016.

Refer to further discussion of derivative financial instruments in the “Market Risk Sensitive Instruments” section that follows. Refer to the tables above for production and price information.

2015 Compared with 2014

Operating revenues for the Exploration and Production segment decreased \$110.7 million in 2015 as compared with 2014. Gas production revenue after hedging decreased \$34.8 million primarily due to a \$0.18 per Mcf decrease in the weighted average price of gas after hedging and a decrease in production due to temporary pricing-related curtailments. Oil production revenue after hedging decreased \$76.5 million due to a \$25.19 per Bbl decrease in the weighted average price of oil after hedging as production was largely flat. In addition, processing plant revenue decreased \$1.9 million, largely due to a decrease in the price of natural gas liquids and other price and volume fluctuations. Partially offsetting these decreases was a \$2.7 million increase in other revenue. This was largely due to a \$3.7 million positive variance in mark-to-market adjustments related to hedging ineffectiveness and the reversal of a gas imbalance liability (\$0.6 million) related to offshore properties no longer owned by the Exploration and Production segment, partially offset by the impact from the receipt of settlement proceeds in fiscal 2014 related to former insurance policies (\$1.9 million) that did not recur in the current year.

Earnings

2016 Compared with 2015

The Exploration and Production segment’s loss for 2016 was \$452.8 million, compared with a loss of \$557.0 million for 2015. The reduction in loss is attributed to lower impairment charges (\$100.1 million), lower depletion expense (\$64.9 million), higher natural gas production (\$8.8 million), lower production costs (\$9.0 million), lower income tax (\$3.2 million), lower other taxes (\$4.1 million) and lower other operating expenses (\$3.3 million). The decrease in depletion expense is primarily due to the impact of impairment charges recognized in fiscal 2015 and fiscal 2016. The decrease in production costs is largely due to a decrease in well repair costs

and a decrease in steam fuel costs associated with crude oil production in the West Coast region (due to lower fuel prices) coupled with a decrease in seasonal road maintenance (due to a milder winter) and decreases in equipment repair and rental costs, salt water disposal costs, and compressor and pumper costs in the Appalachian region. The decrease in income tax expense was primarily due to a solar tax credit received coupled with favorable benefits associated with the tax sharing agreement with affiliated companies. The decrease in other taxes was largely due to IOG being billed for its share of previously incurred impact fees in accordance with the joint development agreement executed in December 2015, coupled with a decrease in Kern and Ventura County taxes (due to a decrease in crude oil prices). The decrease in other operating expenses is primarily due to a decrease in emissions expense and personnel costs, partially offset by higher stock-based compensation expense. These factors, which contributed to less of a loss in 2016 compared to 2015, were partially offset by the impact of joint development agreement professional fees (\$4.6 million), lower crude oil prices after hedging (\$23.6 million), lower natural gas prices after hedging (\$33.6 million), lower crude oil production (\$5.1 million), the impact of mark-to-market adjustments discussed above (\$2.1 million), lower interest income (\$1.1 million) and higher interest expense (\$5.7 million). The joint development agreement professional fees incurred were related to professional services associated with the Marcellus Shale drilling joint development agreement with IOG that was executed in December 2015 and extended in June 2016. The increase in interest expense was largely due to the Exploration and Production segment's share of the Company's \$450 million long-term debt issuance in June 2015. From an income tax perspective, there were favorable adjustments to Seneca's deferred income tax liability in the amount of \$13.2 million in 2015 that did not recur in 2016. The deferred tax adjustments in 2015 were largely the result of an increase in firm transportation of natural gas to Canadian delivery points (with a corresponding decrease in the effective tax rate) and other adjustments.

2015 Compared with 2014

The Exploration and Production segment's loss for 2015 was \$557.0 million, compared with earnings of \$121.6 million for 2014, a decrease of \$678.6 million. The main drivers of the decrease were the aforementioned impairment charges (\$650.2 million), lower crude oil prices after hedging (\$49.7 million), lower natural gas prices after hedging (\$16.3 million), lower natural gas production (\$6.3 million), the impact of the non-recurrence of settlement proceeds on former insurance policies recorded in the prior year (\$1.3 million), higher interest expense (\$2.9 million), higher production costs (\$1.5 million) and higher other operating expenses (\$1.4 million). The increase in production costs was largely attributable to higher transportation costs associated with production volumes transported by Midstream Corporation. The increase in interest expense was largely due to the Exploration and Production segment's share of the Company's \$450 million long-term debt issuance in June 2015. The increase in other operating expenses was largely due to an increase in professional services and personnel costs, partially offset by a reversal of stock-based compensation expense for certain performance based restricted stock unit awards since performance conditions were not met. These decreases in earnings were partially offset by the impact of lower depletion expense (\$36.7 million), lower income tax expense (\$11.8 million) and the impact of mark-to-market adjustments (\$2.4 million). The decrease in depletion expense was due to the impact of impairment charges recognized in the second and third quarters of 2015, a decrease in production due to pricing-related curtailments discussed above, and an increase in reserves achieved with lower finding and development costs per Mcfe (due to increased operating efficiencies). The decrease in income tax expense was largely due to an increase in firm transportation of natural gas to Canadian delivery points, which decreased the effective tax rate used in the calculation of deferred tax expense (\$3.0 million) combined with other deferred tax adjustments that reduced Seneca's deferred income tax liability by \$6.2 million. The decrease in income taxes was partially offset by the non-recurrence of a favorable settlement with a taxing authority that occurred in fiscal 2014.

PIPELINE AND STORAGE

Revenues

Pipeline and Storage Operating Revenues

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Firm Transportation	\$ 229,895	\$ 214,611	\$ 207,892
Interruptible Transportation	3,995	2,971	2,666
	233,890	217,582	210,558
Firm Storage Service	70,351	70,732	69,878
Interruptible Storage Service	143	3	13
	70,494	70,735	69,891
Other	2,045	3,023	3,959
	<u>\$ 306,429</u>	<u>\$ 291,340</u>	<u>\$ 284,408</u>

Pipeline and Storage Throughput — (MMcf)

	Year Ended September 30		
	2016	2015	2014
Firm Transportation	740,875	737,206	731,271
Interruptible Transportation	23,548	12,874	4,724
	<u>764,423</u>	<u>750,080</u>	<u>735,995</u>

2016 Compared with 2015

Operating revenues for the Pipeline and Storage segment increased \$15.1 million in 2016 as compared with 2015. The increase was primarily due to an increase in transportation revenues of \$16.3 million. The increase in transportation revenues was largely due to demand charges for transportation service from Supply Corporation's Westside Expansion and Modernization Project, Supply Corporation's Northern Access 2015 project, which were both fully placed in service during the first quarter of fiscal 2016, and Empire's Tuscarora Lateral Project, which was placed in service in November 2015. The increase in transportation revenues was partially offset by a decrease in short-term seasonal contracts for both Empire and Supply Corporation. Operating revenues were also impacted by a 2% reduction in Supply Corporation's rates associated with the rate case settlement, which became effective November 1, 2015. For additional discussion regarding the rate case settlement, refer to the "Other Matters" section below under the heading "Rate and Regulatory Matters".

Transportation volume increased by 14.3 Bcf in 2016 as compared with 2015. The increase in transportation volume primarily reflects the impact of the above mentioned expansion projects being placed in service. Volume fluctuations, other than those caused by the addition or deletion of contracts, generally do not have a significant impact on revenues as a result of the straight fixed-variable rate design utilized by Supply Corporation and Empire.

2015 Compared with 2014

Operating revenues for the Pipeline and Storage segment increased \$6.9 million in 2015 as compared with 2014. The increase was primarily due to an increase in transportation revenues of \$7.0 million. The increase in transportation revenues was largely due to demand charges for transportation service from Supply Corporation's Mercer Expansion Project, which was placed in service in November 2014. The addition of new firm contracts for transportation service on Supply Corporation's system also contributed to the increase in transportation revenues.

Transportation volume increased by 14.1 Bcf in 2015 as compared with 2014. The increase in transportation volume primarily reflected the results of pricing basis differentials in the Appalachian region in which customers were flowing more natural gas to higher priced markets. The addition of a new contract for interruptible transportation also contributed to the increase in transportation volume.

Earnings

2016 Compared with 2015

The Pipeline and Storage segment's earnings in 2016 were \$76.6 million, a decrease of \$3.8 million when compared with earnings of \$80.4 million in 2015. The decrease in earnings is primarily due to higher operating expenses (\$2.4 million), an increase in depreciation expense (\$3.3 million), an increase in property taxes (\$0.9 million), higher interest expense (\$3.7 million), higher income taxes (\$2.7 million) and a decrease in the allowance for funds used during construction (equity component) of \$0.9 million. The increase in operating expenses primarily reflects higher pension and other post-retirement benefit costs, higher pipeline integrity program expenses, higher compressor station expenses and higher stock-based compensation expense. The increase in depreciation expense was attributable to projects that were placed in service within the last year. The increase in property taxes was attributable to various expansion projects constructed over the last few years. The increase in interest expense was largely due to Supply Corporation's share of the Company's \$450 million long-term debt issuance in June 2015. The increase in income taxes was a result of a reduction in benefits associated with the tax sharing agreement with affiliated companies combined with Empire's provision-to-return adjustments. The decrease in allowance for funds used during construction was mainly due to the above mentioned expansion projects being placed in service in the first quarter of fiscal 2016. The factors contributing to the earnings decrease were partially offset by the positive earnings impact of higher transportation revenues (\$10.6 million), as discussed above.

2015 Compared with 2014

The Pipeline and Storage segment's earnings in 2015 were \$80.4 million, an increase of \$2.8 million when compared with earnings of \$77.6 million in 2014. The increase in earnings was primarily due to the earnings impact of higher transportation revenues of \$4.6 million, as discussed above, combined with an increase in the allowance for funds used during construction (equity component) of \$2.5 million. The increase in the allowance for funds used during construction was mainly due to capital costs incurred during the year ended September 30, 2015 related to various expansion projects then under construction. These earnings increases were partially offset by higher operating expenses (\$2.0 million), an increase in depreciation expense (\$1.0 million), an increase in property taxes (\$0.9 million) and higher interest expense (\$0.8 million). The increase in operating expenses primarily reflects an increase in compressor maintenance costs, an increase in expense related to the reserve for preliminary project costs, an increase in regulatory commission expense and increased personnel costs offset partially by the reversal of stock-based compensation expense for certain performance based restricted stock unit awards since performance conditions were not met. The increase in depreciation expense was attributable to incremental depreciation expense related to projects that were placed in service during fiscal 2015. The increase in property taxes was attributable to various expansion projects constructed over the last few years. The increase in interest expense was largely due to Supply Corporation's share of the Company's \$450 million long-term debt issuance in June 2015.

GATHERING

Revenues

Gathering Operating Revenues

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Gathering	\$ 89,073	\$ 76,709	\$ 69,937
Processing and Other Revenues	374	497	673
	<u>\$ 89,447</u>	<u>\$ 77,206</u>	<u>\$ 70,610</u>

Gathering Volume — (MMcf)

	Year Ended September 30		
	2016	2015	2014
Gathered Volume	<u>161,955</u>	<u>139,629</u>	<u>138,726</u>

2016 Compared with 2015

Operating revenues for the Gathering segment increased \$12.2 million in 2016 as compared with 2015. This increase was due to an increase in gathering revenues driven by a 22.3 Bcf increase in gathered volume. The overall increase in gathered volume was largely due to a 47.0 Bcf increase in gathered volume on Midstream Corporation's Clermont Gathering System (Clermont), largely attributable to the connection of additional wells to the gathering system as a result of the completion of the Northern Access 2015 project in November and December 2015. This increase in gathered volume was partially offset by a 21.8 Bcf decrease in gathered volume on Midstream Corporation's Trout Run Gathering System (Trout Run) and a 3.1 Bcf decrease in gathered volume on Midstream Corporation's Covington Gathering System (Covington). These decreases were largely due to price related curtailments of Seneca's Marcellus Shale production.

2015 Compared with 2014

Operating revenues for the Gathering segment increased \$6.6 million in 2015 as compared with 2014. This increase was due to an increase in gathering revenues driven by higher gathering rates coupled with a 0.9 Bcf increase in gathered volume. The overall increase in gathered volume was largely due to a 15.4 Bcf increase in gathered volume on Clermont, which was placed in service in July 2014, and a 1.6 Bcf increase in gathered volume on Trout Run where the increase in production during the first two quarters of fiscal 2015 more than offset the impact of low natural gas price related production curtailments experienced in the last two quarters of fiscal 2015. The increases in gathered volume were largely offset by a 14.8 Bcf decrease in gathered volume on Covington, a 1.0 Bcf decrease in gathered volume on Midstream Corporation's Mt. Jewett Gathering System (Mt. Jewett) and a 0.3 Bcf decrease in gathered volume on Midstream Corporation's Tionesta Gathering System (Tionesta). Most of these decreases in gathered volume are attributable to a decrease in Seneca's Marcellus Shale production largely due to the impact of low natural gas prices, which caused Seneca to curtail production.

Earnings

2016 Compared with 2015

The Gathering segment's earnings in 2016 were \$30.5 million, a decrease of \$1.3 million when compared with earnings of \$31.8 million in 2015. While gathering revenues increased \$8.0 million, as discussed above, the increase in revenues was more than offset by higher interest expense (\$4.7 million), higher depreciation expense (\$2.9 million) and higher operating expenses (\$1.6 million). The increase in interest expense is largely due to the Gathering segment's share of the Company's \$450 million long-term debt issuance in June 2015 coupled with a decrease in capitalized interest, which was due to various Clermont projects being placed in service. A large increase in plant balances (largely due to various Clermont projects being placed in service), partially offset by the non-recurrence of long-lived asset impairment charges recorded in March 2015 related to the gathering facilities at Tionesta, led to an overall increase in depreciation expense. The increase in operating expenses was largely due to the significant growth of Clermont and its impact on maintenance expense.

2015 Compared with 2014

The Gathering segment's earnings in 2015 were \$31.8 million, a decrease of \$0.9 million when compared with earnings of \$32.7 million in 2014. The decrease in earnings was mainly due to the earnings impact of higher depreciation expense (\$3.1 million), higher operating expenses (\$1.1 million) and higher income tax expense (\$1.0 million). These earnings decreases were partially offset by higher gathering revenues (\$4.4 million). The growth of Trout Run and Clermont was primarily responsible for the revenue and operating expense variations. During the quarter ended March 31, 2015, the Company recorded long-lived asset impairment charges (\$1.0 million) related to its gathering facilities at Tionesta. This impairment, combined with greater plant balances, led to an increase in depreciation expense. The increase in income tax expense was due to higher state income taxes and the impact of the provision-to-return adjustments.

UTILITY

Revenues

Utility Operating Revenues

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Retail Revenues:			
Residential	\$ 360,648	\$ 480,163	\$ 590,080
Commercial	44,994	61,099	78,036
Industrial	1,785	2,655	3,692
	407,427	543,917	671,808
Off-System Sales	1,877	11,773	19,712
Transportation	124,120	142,289	150,158
Other	10,723	18,288	7,940
	<u>\$ 544,147</u>	<u>\$ 716,267</u>	<u>\$ 849,618</u>

Utility Throughput — million cubic feet (MMcf)

	Year Ended September 30		
	2016	2015	2014
Retail Sales:			
Residential	49,971	59,600	60,101
Commercial	7,247	8,710	8,834
Industrial	244	337	393
	57,462	68,647	69,328
Off-System Sales	1,243	3,787	4,564
Transportation	70,847	78,749	80,949
	<u>129,552</u>	<u>151,183</u>	<u>154,841</u>

Degree Days

					Percent (Warmer) Colder Than	
Year Ended September 30		Normal		Actual	Normal	Prior Year
2016(1)	Buffalo	6,653	(4)	5,611	(15.7)%	(19.5)%
	Erie	6,181	(4)	5,182	(16.2)%	(21.3)%
2015(2)	Buffalo	6,617		6,968	5.3 %	(1.7)%
	Erie	6,147		6,586	7.1 %	(2.3)%
2014(3)	Buffalo	6,617		7,087	7.1 %	15.4 %
	Erie	6,147		6,742	9.7 %	14.5 %

(1) Percents compare actual 2016 degree days to normal degree days and actual 2016 degree days to actual 2015 degree days.

(2) Percents compare actual 2015 degree days to normal degree days and actual 2015 degree days to actual 2014 degree days.

(3) Percents compare actual 2014 degree days to normal degree days and actual 2014 degree days to actual 2013 degree days.

- (4) Normal degree day estimates changed to 6,653 for Buffalo and 6,181 for Erie as a result of updated information from the National Oceanic and Atmospheric Administration. In addition, normal degree days for 2016 reflect the fact that 2016 was a leap year.

2016 Compared with 2015

Operating revenues for the Utility segment decreased \$172.1 million in 2016 compared with 2015. This decrease largely resulted from a \$136.5 million decrease in retail gas sales revenues. In addition, there was a \$9.9 million decrease in off-system sales, an \$18.2 million decrease in transportation revenues, and a \$7.5 million decrease in other revenues. The decrease in retail gas sales revenue was largely a result of a decrease in the cost of gas sold (per Mcf) coupled with lower volumes due to warmer weather. The \$18.2 million decrease in transportation revenues was primarily due to a 7.9 Bcf decrease in transportation throughput due to warmer weather experienced during the fiscal 2016 winter relative to the fiscal 2015 winter. The decrease in off-system sales was due to market conditions that have continued to reduce the volumes and the price at which off-system gas could be sold. Due to profit sharing with retail customers, the margins resulting from off-system sales are minimal. The decrease in other revenues was largely due to the non-recurrence of a regulatory adjustment recorded during fiscal 2015 to recognize an under collection of a New York State regulatory assessment from customers. In addition, a reversal of an accrual for an estimated sharing refund provision in New York did not recur in 2016.

2015 Compared with 2014

Operating revenues for the Utility segment decreased \$133.4 million in 2015 compared with 2014. This decrease largely resulted from a \$127.9 million decrease in retail gas sales revenues. In addition, there was a \$7.9 million decrease in off-system sales and a \$7.9 million decrease in transportation revenues. These were partially offset by a \$10.3 million increase in other operating revenues. The increase in other operating revenues was largely due to a regulatory adjustment recorded during 2015 to recognize an under-collection from customers of a New York State regulatory assessment, a 2015 reversal of a portion of a 2014 accrual for an estimated sharing refund provision in New York, and an increase in capacity release revenues. As a result of a colder than normal calendar 2013/2014 winter season, the demand for pipeline capacity increased as pipeline capacity release contracts for Distribution Corporation's calendar 2014/2015 winter season were being executed. This increase in demand resulted in higher capacity release rates for Distribution Corporation in 2015 compared to 2014, thus resulting in higher capacity release revenues.

The \$127.9 million decrease in retail gas sales revenues was largely a result of a decrease in the cost of gas sold (per Mcf) coupled with lower volumes due to slightly warmer weather than the prior year. The \$7.9 million decrease in transportation revenues was primarily due to a 2.2 Bcf decrease in transportation throughput due to slightly warmer weather than the prior year. The \$7.9 million decrease in off-system sales was due to lower volumes as market conditions reduced the opportunity for off-system gas sales.

Purchased Gas

The cost of purchased gas is the Company's single largest operating expense. Annual variations in purchased gas costs are attributed directly to changes in gas sales volume, the price of gas purchased and the operation of purchased gas adjustment clauses. Distribution Corporation recorded \$166.2 million, \$307.7 million and \$446.9 million of Purchased Gas expense during 2016, 2015 and 2014, respectively. Under its purchased gas adjustment clauses in New York and Pennsylvania, Distribution Corporation is not allowed to profit from fluctuations in gas costs. Purchased gas expense recorded on the consolidated income statement matches the revenues collected from customers, a component of Operating Revenues on the consolidated income statement. Under mechanisms approved by the NYPSC in New York and the PaPUC in Pennsylvania, any difference between actual purchased gas costs and what has been collected from the customer is deferred on the consolidated balance sheet as either an asset, Unrecovered Purchased Gas Costs, or a liability, Amounts Payable to Customers. These deferrals are subsequently collected from the customer or passed back to the customer, subject to review by the NYPSC and the PaPUC. Absent disallowance of full recovery of Distribution Corporation's purchased gas costs, such costs do not impact the profitability of the Company. Purchased gas costs impact cash flow from operations due to the timing of recovery of such costs versus the actual purchased gas costs incurred during a particular period.

Distribution Corporation's purchased gas adjustment clauses seek to mitigate this impact by adjusting revenues on either a quarterly or monthly basis.

Distribution Corporation contracts for long-term firm transportation capacity with Supply Corporation, Empire and six other upstream pipeline companies, and for storage service with Supply Corporation and two other upstream companies. Distribution Corporation utilizes long-term and spot gas supply contracts with various producers and marketers to satisfy purchase requirements. Additional discussion of the Utility segment's gas purchases appears under the heading "Sources and Availability of Raw Materials" in Item 1.

Earnings

2016 Compared with 2015

The Utility segment's earnings in 2016 were \$51.0 million, a decrease of \$12.3 million when compared with earnings of \$63.3 million in 2015. The decrease in earnings was largely attributable to the impact of warmer weather in fiscal 2016 compared to fiscal 2015 (\$12.5 million), a \$2.0 increase in depreciation expense (largely due to higher plant balances) and \$3.4 million of regulatory adjustments, as discussed above. The negative earnings impact associated with these factors was partially offset by the positive earnings impact associated with a decrease in operating expenses of \$5.6 million (primarily due to a reduction in personnel costs partially offset by higher stock-based compensation expense).

The impact of weather variations on earnings in the Utility segment's New York rate jurisdiction is mitigated by that jurisdiction's weather normalization clause (WNC). The WNC in New York, which covers the eight-month period from October through May, has had a stabilizing effect on earnings for the New York rate jurisdiction. In addition, in periods of colder than normal weather, the WNC benefits the Utility segment's New York customers. For 2016, the WNC increased earnings by approximately \$4.4 million as the weather was warmer than normal. In 2015, the WNC reduced earnings by approximately \$2.5 million as the weather was colder than normal.

2015 Compared with 2014

The Utility segment's earnings in 2015 were \$63.3 million, a decrease of \$0.8 million when compared with earnings of \$64.1 million in 2014. The decrease in earnings was largely attributable to an increase in operating expenses (\$5.8 million), an increase in depreciation expense (\$1.3 million) and the impact of slightly warmer weather in fiscal 2015 compared to fiscal 2014 (\$0.6 million). The increase in operating expenses was largely attributable to costs associated with the replacement of the Utility segment's legacy mainframe systems, partially offset by the reversal of stock-based compensation expense for certain performance based restricted stock unit awards since performance conditions were not met. The increase in depreciation expense was due to an increase in plant balances in fiscal 2015 compared to fiscal 2014. These earnings decreases were partially offset by a \$6.2 million increase in regulatory adjustments, as discussed above, and a \$0.9 million increase in capacity release revenues, as discussed above.

ENERGY MARKETING

Revenues

Energy Marketing Operating Revenues

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Natural Gas (after Hedging)	\$ 94,028	\$ 160,651	\$ 273,099
Other	434	55	53
	<u>\$ 94,462</u>	<u>\$ 160,706</u>	<u>\$ 273,152</u>

Energy Marketing Volume

	Year Ended September 30		
	2016	2015	2014
Natural Gas — (MMcf)	39,849	46,752	52,694

2016 Compared with 2015

Operating revenues for the Energy Marketing segment decreased \$66.2 million in 2016 as compared with 2015. The decrease is primarily due to a decline in gas sales revenue due to a lower average price of natural gas period over period. A decrease in volume sold to retail customers as a result of warmer weather also contributed to the decline in operating revenues.

2015 Compared with 2014

Operating revenues for the Energy Marketing segment decreased \$112.4 million in 2015 as compared with 2014. The decrease was primarily due to a decline in gas sales revenue due to a lower average price of natural gas period over period and a decrease in volume sold to retail customers.

Earnings

2016 Compared with 2015

The Energy Marketing segment's earnings in 2016 were \$4.3 million, a decrease of \$3.5 million when compared with earnings of \$7.8 million in 2015. This decrease in earnings was largely attributable to lower margin of \$3.6 million. The decrease in margin largely reflects the margin impact associated with the decrease in volume sold to retail customers as a result of warmer weather during the year ended September 30, 2016 compared to the year ended September 30, 2015. Margin was also negatively impacted by changes in natural gas prices at local purchase points relative to NYMEX-based customer sales contracts. This decrease was partially offset by an increase to margin due to an increase in the benefit the Energy Marketing segment realized from its contracts for storage capacity.

2015 Compared with 2014

The Energy Marketing segment's earnings in 2015 were \$7.8 million, an increase of \$1.2 million when compared with earnings of \$6.6 million in 2014. This increase in earnings was largely attributable to higher margin of \$1.4 million. The increase in margin largely reflected a reduction in pipeline capacity reservation charges due to the turn back of certain storage and transportation capacity, higher average margins per Mcf, and an increase in the benefit the Energy Marketing segment realized from its contracts for storage capacity. These increases were partially offset by slightly lower margin associated with unbilled revenue. The Energy Marketing segment began recording unbilled revenue and related gas costs during the quarter ended December 31, 2013. Prior to that quarter, Energy Marketing segment revenues and related purchased gas costs had been recorded when billed, resulting in a one-month lag. As a result of eliminating the one-month lag, revenues and related gas costs for the year ended September 30, 2014 reflected thirteen months of activity whereas the revenue and related gas costs for the year ended September 30, 2015 reflected twelve months of activity.

ALL OTHER AND CORPORATE OPERATIONS

All Other and Corporate operations primarily includes the operations of Seneca's Northeast Division and corporate operations. Seneca's Northeast Division markets timber from its New York and Pennsylvania land holdings.

Earnings

2016 Compared with 2015

All Other and Corporate operations recorded a loss of \$0.5 million in 2016, which was \$5.2 million lower than the loss of \$5.7 million in 2015. The reduction in loss can be attributed to a death benefit gain on life insurance of \$1.7 million that was recognized during the year ended September 30, 2016 and was recorded in Other Income.

In addition, lower operating expenses of \$0.5 million (primarily due to a decrease in personnel costs partially offset by higher stock-based compensation expense), higher margins of \$0.9 million (from the sale of standing timber and stumpage tracts by Seneca's land and timber division) and the impact of lower income tax expense of \$1.6 million (primarily due to consolidated tax sharing adjustments) further reduced the loss during the year ended September 30, 2016.

2015 Compared with 2014

All Other and Corporate operations recorded a loss of \$5.7 million in 2015, which was \$2.6 million higher than the loss of \$3.1 million in 2014. The increase in loss was primarily due to the non-recurrence of a \$3.6 million death benefit gain on life insurance proceeds recognized during the quarter ended March 31, 2014, which was recorded in Other Income. A \$0.8 million decrease in margin from the sale of standing timber (including certain timber stumpage tracts by Seneca's land and timber division) decreased earnings further. These decreases were offset partially by lower income tax expense of \$1.2 million (primarily due to consolidated tax sharing) and lower operating expenses of \$1.1 million (largely due to the reversal of stock-based compensation expense for certain performance based restricted stock unit awards since performance conditions were not met).

INTEREST CHARGES

Although most of the variances in Interest Charges are discussed in the earnings discussion by segment above, the following is a summary on a consolidated basis (amounts below are pre-tax amounts):

Interest on long-term debt increased \$21.4 million in 2016 as compared to 2015. This increase is primarily due to additional long-term debt that was issued in fiscal 2015. The Company issued \$450 million of 5.20% notes in June 2015. Additionally, capitalized interest decreased as a result of various projects being placed into service, which increased interest expense for the year ended September 30, 2016 as compared to the year ended September 30, 2015.

Interest on long-term debt increased \$5.7 million in 2015 as compared to 2014. This increase was due to additional long-term debt that was issued in fiscal 2015. The Company issued \$450 million of 5.20% notes in June 2015. This was partially offset by the impact of an increase in capitalized interest (mostly in Midstream Corporation), which decreased interest expense for the year ended September 30, 2015 as compared to the year ended September 30, 2014.

CAPITAL RESOURCES AND LIQUIDITY

The primary sources and uses of cash during the last three years are summarized in the following condensed statement of cash flows:

	Year Ended September 30		
	2016	2015	2014
	(Millions)		
Provided by Operating Activities	\$ 589.0	\$ 853.6	\$ 909.4
Capital Expenditures	(581.6)	(1,018.2)	(914.4)
Net Proceeds from Sale of Oil and Gas Producing Properties	137.3	—	—
Other Investing Activities	(9.2)	(6.6)	6.0
Change in Notes Payable to Banks and Commercial Paper	—	(85.6)	85.6
Net Proceeds from Issuance of Long-Term Debt	—	444.6	—
Net Proceeds from Issuance of Common Stock	13.8	10.5	7.5
Dividends Paid on Common Stock	(134.8)	(130.7)	(126.7)
Excess Tax Benefits Associated with Stock-Based Compensation Awards	1.9	9.1	4.6
Net Increase (Decrease) in Cash and Temporary Cash Investments	\$ 16.4	\$ 76.7	\$ (28.0)

OPERATING CASH FLOW

Internally generated cash from operating activities consists of net income available for common stock, adjusted for non-cash expenses, non-cash income and changes in operating assets and liabilities. Non-cash items include depreciation, depletion and amortization, impairment of oil and gas producing properties, deferred income taxes and stock-based compensation.

Cash provided by operating activities in the Utility and Pipeline and Storage segments may vary substantially from year to year because of the impact of rate cases. In the Utility segment, supplier refunds, over- or under-recovered purchased gas costs and weather may also significantly impact cash flow. The impact of weather on cash flow is tempered in the Utility segment's New York rate jurisdiction by its WNC and in the Pipeline and Storage segment by the straight fixed-variable rate design used by Supply Corporation and Empire.

Cash provided by operating activities in the Exploration and Production segment may vary from year to year as a result of changes in the commodity prices of natural gas and crude oil as well as changes in production. The Company uses various derivative financial instruments, including price swap agreements and futures contracts in an attempt to manage this energy commodity price risk.

Net cash provided by operating activities totaled \$589.0 million in 2016, a decrease of \$264.6 million compared with the \$853.6 million provided by operating activities in 2015. The decrease in cash provided by operating activities reflects lower cash provided by operating activities in the Exploration and Production segment and the Utility segment. The decrease in the Exploration and Production segment is primarily due to lower cash receipts from crude oil and natural gas production as a result of lower crude oil and natural gas prices and curtailed production. The decrease in the Utility segment is primarily due to the timing of gas cost recovery.

Net cash provided by operating activities totaled \$853.6 million in 2015, a decrease of \$55.8 million compared with the \$909.4 million provided by operating activities in 2014. The decrease in cash provided by operating activities reflects lower cash provided by operating activities in the Exploration and Production segment. The decrease was partially offset by the increase in cash provided by operating activities in the Utility segment, Pipeline and Storage segment and Gathering segment. The decrease in the Exploration and Production segment was primarily due to lower cash receipts from crude oil and natural gas production as a result of lower crude oil and natural gas prices. The increase in the Utility segment was primarily due to the timing of gas cost recovery and the timing of receivable collections. The increase in the Gathering segment was primarily a result of an increase in Seneca's Marcellus Shale production, which resulted in higher gathering revenues at the Trout Run and Clermont gathering systems. Lastly, the increase in the Pipeline and Storage segment was due to higher cash receipts from transportation revenues as a result of expansion projects coming on-line.

INVESTING CASH FLOW

Expenditures for Long-Lived Assets

The Company's expenditures for long-lived assets, including non-cash capital expenditures, totaled \$523.1 million, \$1.0 billion and \$969.9 million in 2016, 2015 and 2014, respectively. The table below presents these expenditures:

	Year Ended September 30		
	2016	2015	2014
	(Millions)		
Exploration and Production:			
Capital Expenditures	\$ 256.1 (1)	\$ 557.3 (2)	\$ 602.7 (3)
Pipeline and Storage:			
Capital Expenditures	114.3 (1)	230.2 (2)	139.8 (3)
Gathering:			
Capital Expenditures	54.3 (1)	118.2 (2)	137.8 (3)
Utility:			
Capital Expenditures	98.0 (1)	94.4 (2)	88.8 (3)
All Other and Corporate:			
Capital Expenditures	0.4	0.4	0.8
Total Expenditures	<u>\$ 523.1</u>	<u>\$ 1,000.5</u>	<u>\$ 969.9</u>

- (1) 2016 capital expenditures for the Exploration and Production segment, the Pipeline and Storage segment, the Gathering segment and the Utility segment include \$25.2 million, \$18.7 million, \$5.3 million and \$11.2 million, respectively, of non-cash capital expenditures. The capital expenditures for the Exploration and Production segment do not include any proceeds from the sale of oil and gas assets to IOG under the joint development agreement.
- (2) 2015 capital expenditures for the Exploration and Production segment, the Pipeline and Storage segment, the Gathering segment and the Utility segment include \$46.2 million, \$33.9 million, \$22.4 million and \$16.5 million, respectively, of non-cash capital expenditures.
- (3) 2014 capital expenditures for the Exploration and Production segment, the Pipeline and Storage segment, the Gathering segment and the Utility segment include \$80.1 million, \$28.1 million, \$20.1 million and \$8.3 million, respectively, of non-cash capital expenditures.

Exploration and Production

In 2016, the Exploration and Production segment capital expenditures were primarily well drilling and completion expenditures and included approximately \$217.3 million for the Appalachian region (including \$201.8 million in the Marcellus Shale area) and \$38.8 million for the West Coast region. These amounts included approximately \$92.8 million spent to develop proved undeveloped reserves.

On December 1, 2015, Seneca and IOG - CRV Marcellus, LLC (IOG), an affiliate of IOG Capital, LP, and funds managed by affiliates of Fortress Investment Group, LLC, executed a joint development agreement that allows IOG to participate in the development of certain oil and gas interests owned by Seneca in Elk, McKean and Cameron Counties, Pennsylvania. On June 13, 2016, Seneca and IOG executed an extension of the joint development agreement. Under the terms of the extended agreement, Seneca and IOG will jointly participate in a program to develop up to 75 Marcellus wells, with Seneca serving as program operator. The extended joint development agreement gives IOG the option to participate in an additional 7-well Marcellus pad that is expected to be completed before December 31, 2017, which, if exercised, would increase the maximum number of joint development wells to 82. Under the original joint development agreement, IOG had committed to develop 42 Marcellus wells. As of September 30, 2016, Seneca had received \$137.3 million of cash and had recorded a \$19.6 million receivable in recognition of IOG funding that is due to Seneca for costs previously incurred to develop a portion of the first 75 joint development wells. The cash proceeds and receivable were recorded by Seneca as a

\$156.9 million reduction of property, plant and equipment. For further discussion of the extended joint development agreement, refer to Item 8 at Note A - Summary of Significant Accounting Policies under the heading "Property, Plant and Equipment."

On June 30, 2016, Seneca sold the majority of its Upper Devonian wells in Pennsylvania. While the proceeds from the sale were not significant, it did result in a \$58.4 million reduction of its Asset Retirement Obligation for the year ended September 30, 2016.

In 2015, the Exploration and Production segment capital expenditures were primarily well drilling and completion expenditures and included approximately \$500.2 million for the Appalachian region (including \$458.6 million in the Marcellus Shale area) and \$57.1 million for the West Coast region. These amounts included approximately \$161.8 million spent to develop proved undeveloped reserves.

In 2014, the Exploration and Production segment capital expenditures were primarily well drilling and completion expenditures and included approximately \$519.9 million for the Appalachian region (including \$502.9 million in the Marcellus Shale area) and \$82.8 million for the West Coast region. These amounts included approximately \$179.9 million spent to develop proved undeveloped reserves.

Pipeline and Storage

The majority of the Pipeline and Storage segment's capital expenditures for 2016 were mainly for expenditures related to Empire and Supply Corporation's Northern Access 2016 Project (\$26.7 million), Supply Corporation's Northern Access 2015 Project (\$13.1 million), Supply Corporation's Westside Expansion and Modernization Project (\$11.1 million), Supply Corporation's Line D Expansion Project (\$10.4 million) and Empire and Supply Corporation's Tuscarora Lateral Project (\$7.6 million), as discussed below. In addition, the Pipeline and Storage segment capital expenditures for 2016 also include additions, improvements and replacements to this segment's transmission and gas storage systems.

The majority of the Pipeline and Storage segment's capital expenditures for 2015 were mainly for expenditures related to Supply Corporation's Westside Expansion and Modernization Project (\$63.0 million), Empire and Supply Corporation's Tuscarora Lateral Project (\$53.7 million), Supply Corporation's Northern Access 2015 Project (\$40.4 million), Supply Corporation's Northern Access 2016 Project (\$5.9 million) and Supply Corporation's Mercer Expansion Project (\$5.4 million). In addition, the Pipeline and Storage segment capital expenditures for 2015 also include additions, improvements and replacements to this segment's transmission and gas storage systems.

The majority of the Pipeline and Storage segment's capital expenditures for 2014 were related to additions, improvements, and replacements to this segment's transmission and gas storage systems. In addition, the Pipeline and Storage segment capital expenditures for 2014 included expenditures related to Supply Corporation's Mercer Expansion Project (\$27.0 million), Supply Corporation's Northern Access 2015 project (\$11.1 million) and Supply Corporation's Westside Expansion and Modernization Project (\$4.8 million).

Gathering

The majority of the Gathering segment's capital expenditures for 2016 were for the continued buildout of Midstream Corporation's Clermont Gathering System (\$43.2 million), as discussed below.

The majority of the Gathering segment's capital expenditures for 2015 were for the construction of Midstream Corporation's Clermont Gathering System (\$117.3 million).

The majority of the Gathering segment's capital expenditures for 2014 were for the construction of Midstream Corporation's Clermont Gathering System (\$95.2 million) and to build compressor stations on Midstream Corporation's Trout Run Gathering System (\$32.9 million). In addition, the Gathering segment capital expenditures for 2014 included expenditures for the expansion of Midstream Corporation's Covington Gathering System in Tioga County, Pennsylvania (\$4.6 million).

Utility

The majority of the Utility segment's capital expenditures for 2016, 2015 and 2014 were made for replacement of mains and main extensions and for the replacement of service lines. The capital expenditures for 2016, 2015

and 2014 included \$16.4 million, \$18.4 million and \$15.6 million, respectively, related to the replacement of the Utility segment's customer information system, as discussed below.

Estimated Capital Expenditures

The Company's estimated capital expenditures for the next three years are:

	Year Ended September 30		
	2017	2018	2019
	(Millions)		
Exploration and Production(1)	\$ 225	\$ 400	\$ 355
Pipeline and Storage	415	240	250
Gathering	70	80	110
Utility	95	95	95
All Other	—	—	—
	<u>\$ 805</u>	<u>\$ 815</u>	<u>\$ 810</u>

- (1) Includes estimated expenditures for the years ended September 30, 2017, 2018 and 2019 of approximately \$124 million, \$98 million and \$44 million, respectively, to develop proved undeveloped reserves. The Company is committed to developing its proved undeveloped reserves within five years as required by the SEC's final rule on Modernization of Oil and Gas Reporting. The capital expenditures for the Exploration and Production segment do not include any potential proceeds from the sale of oil and gas assets to IOG under the joint development agreement.

Exploration and Production

Estimated capital expenditures in 2017 for the Exploration and Production segment include approximately \$185 million for the Appalachian region and \$40 million for the West Coast region.

Estimated capital expenditures in 2018 for the Exploration and Production segment include approximately \$370 million for the Appalachian region and \$30 million for the West Coast region.

Estimated capital expenditures in 2019 for the Exploration and Production segment include approximately \$320 million for the Appalachian region and \$35 million for the West Coast region.

Pipeline and Storage

Capital expenditures for the Pipeline and Storage segment in 2017 through 2019 are expected to include: construction of new pipeline and compressor stations to support expansion projects, the replacement of transmission and storage lines, the reconditioning of storage wells and improvements of compressor stations. Expansion projects are discussed below.

In light of the continuing demand for pipeline capacity to move natural gas from new wells being drilled in Appalachia — specifically in the Marcellus and Utica Shale producing areas — Supply Corporation and Empire are actively pursuing several expansion projects and paying for preliminary survey and investigation costs, which are initially recorded as Deferred Charges on the Consolidated Balance Sheet. An offsetting reserve is established as those preliminary survey and investigation costs are incurred, which reduces the Deferred Charges balance and increases Operation and Maintenance Expense on the Consolidated Statement of Income. The Company reviews all projects on a quarterly basis, and if it is determined that it is highly probable that the project will be built, the reserve is reversed. This reversal reduces Operation and Maintenance Expense and reestablishes the original balance in Deferred Charges. After the reversal of the reserve, the amounts remain in Deferred Charges until such time as capital expenditures for the project have been incurred and activities that are necessary to get the construction project ready for its intended use are in progress. At that point, the balance is transferred from Deferred Charges to Construction Work in Progress, a component of Property, Plant and Equipment on the Consolidated Balance Sheet. As of September 30, 2016, the total amount reserved for the Pipeline and Storage segment's preliminary survey and investigation costs was \$7.4 million.

Supply Corporation and Empire are moving forward with, or have recently completed, several projects designed to move anticipated Marcellus and Utica production gas to other interstate pipelines and to on-system markets, and markets beyond the Supply Corporation and Empire pipeline systems. Projects where the Company has begun to make significant investments of preliminary survey and investigation costs and/or where shipper agreements have been executed are described below.

The Westside Expansion and Modernization Project, which further increases Supply Corporation's capacity to move gas north and south on its Line N system to Texas Eastern Transmission, LP ("TETCO") at Holbrook and Tennessee Gas Pipeline ("TGP") at Mercer, was fully placed in service during the first quarter of fiscal 2016. As of September 30, 2016, approximately \$79.0 million has been spent on the Westside Expansion and Modernization Project, all of which is included in Property, Plant and Equipment on the Consolidated Balance Sheet at September 30, 2016.

Supply Corporation and TGP jointly developed the Northern Access 2015 project that combines expansions on both pipeline systems, providing a seamless transportation path from TGP's 300 Line in the Marcellus fairway to the TransCanada Pipeline delivery point at Niagara. Northern Access 2015 was fully placed in service during the first quarter of fiscal 2016. As of September 30, 2016, approximately \$64.6 million has been spent on the Northern Access 2015 project, all of which is included in Property, Plant and Equipment on the Consolidated Balance Sheet at September 30, 2016.

Supply Corporation and Empire have been working with Seneca to develop a project which would move significant prospective Marcellus production from Seneca's Western Development Area at Clermont to an Empire interconnection with TransCanada Pipeline at Chippawa ("Northern Access 2016") and an interconnection with TGP's 200 Line in East Aurora, New York. Similar to the goal of the Northern Access 2015 project, the separate and distinct Northern Access 2016 project would provide an outlet to Dawn-indexed markets in Canada and to the TGP line serving the U.S. Northeast. The Northern Access 2016 project involves the construction of approximately 99 miles of largely 24" pipeline and approximately 27,500 horsepower of compression on the two systems. The target in-service date for this project is November 1, 2017. The preliminary cost estimate for the Northern Access 2016 project is \$455 million. Supply Corporation, Empire and Seneca executed anchor shipper agreements for 350,000 Dth per day of firm transportation delivery capacity to Chippawa and 140,000 Dth per day of firm transportation capacity to a new interconnection with TGP's 200 Line on this project. On July 24, 2014, Supply Corporation and Empire initiated the FERC NEPA Pre-filing process on this project and both parties filed a joint FERC 7(b) and 7(c) application in early March 2015 and amended that application on November 2, 2015. On July 27, 2016, the FERC issued the Environmental Assessment for the project, completing a significant milestone in the FERC review process. As of September 30, 2016, approximately \$46.9 million has been spent on the Northern Access 2016 project, including \$14.3 million that has been spent to study the project. The Company has determined it is highly probable that the project will be built. Accordingly, previous reserves have been reversed and this \$14.3 million of project costs has been reestablished as a Deferred Charge on the Consolidated Balance Sheet. The remaining \$32.6 million spent on the project has been capitalized as Construction Work in Progress. The remainder of the preliminary cost estimate expected to be spent on this project is included as Pipeline and Storage estimated capital expenditures in the table above.

On November 21, 2014, Supply Corporation concluded an Open Season for an expansion of its Line D pipeline ("Line D Expansion") that is intended to allow growing on-system markets to avail themselves of economical gas supply on the TGP 300 line, at an existing interconnect at Lamont, Pennsylvania, and provide increased capacity into the Erie, Pennsylvania market area. Supply Corporation has executed Service Agreements for a total of 77,500 Dth per day for terms of six to ten years. The project involves construction of a new 4,152 horsepower Keelor Compressor Station and modifications to the Roystone and Bowen compressor stations at an estimated capital cost of approximately \$27.9 million. The project will also provide system modernization benefits. Supply Corporation filed on December 22, 2015 for authorization to construct this project under its FERC blanket certificate and completed the FERC notice period on February 26, 2016. Although the portion of the project associated with the construction of the Keelor Compressor Station awaits receipt of an Air Permit from the PaDEP, the target in-service date is April 1, 2017. As of September 30, 2016, approximately \$10.4 million has been capitalized as Construction Work in Progress for the Line D Expansion project. The remaining expenditures expected to be spent are included in Pipeline and Storage estimated capital expenditures in the table above.

Empire and Supply Corporation's Tuscarora Lateral Project, which allows Empire to provide firm no-notice storage and transportation services to new and existing shippers on its system, was placed in service in November 2015. As of September 30, 2016, approximately \$63.0 million has been spent on the Tuscarora Lateral Project, all of which is included in Property, Plant and Equipment on the Consolidated Balance Sheet at September 30, 2016.

Empire is developing an expansion of its system, and concluded an Open Season on November 18, 2015, that would allow for the transportation of approximately 300,000 Dth per day of additional Marcellus supplies from Millennium Pipeline at Corning, from Supply Corporation at Tuscarora, or from new interconnections in Tioga County, Pennsylvania, to the TransCanada Pipeline and the TGP 200 Line ("Empire North Project"), and is negotiating precedent agreements with prospective shippers for that capacity. The preliminary cost estimate for the Empire North Project is approximately \$185 million dependent on final receipt and delivery point selections. As of September 30, 2016, approximately \$0.3 million has been spent to study this project, all of which has been included in preliminary survey and investigation charges and has been fully reserved for at September 30, 2016.

Gathering

The majority of the Gathering segment capital expenditures in 2017 through 2019 are expected to be for construction and expansion of gathering systems, as discussed below.

NFG Midstream Clermont, LLC, a wholly owned subsidiary of Midstream Corporation, is building an extensive gathering system with compression in the Pennsylvania counties of McKean, Elk and Cameron. The total cost estimate for the continued buildout will be dependent on the nature and timing of the shippers', including Seneca's, long-term plans. As of September 30, 2016, approximately \$259.6 million has been spent on the Clermont Gathering System, including approximately \$43.2 million spent during the year ended September 30, 2016, all of which is included in Property, Plant and Equipment on the Consolidated Balance Sheet at September 30, 2016.

NFG Midstream Trout Run, LLC, a wholly owned subsidiary of Midstream Corporation, continues to develop its Trout Run Gathering System in Lycoming County, Pennsylvania. The Trout Run Gathering System was initially placed in service in May 2012. The current system consists of approximately 42 miles of backbone and in-field gathering pipelines and two compressor stations. Estimated capital expenditures in 2017 through 2019 include anticipated expenditures in the range of \$50 million to \$100 million for the continued expansion of the Trout Run Gathering System. As of September 30, 2016, the Company has spent approximately \$167.2 million in costs related to this project, all of which is included in Property, Plant and Equipment on the Consolidated Balance Sheet at September 30, 2016.

Utility

Capital expenditures for the Utility segment in 2017 through 2019 are expected to be concentrated in the areas of main and service line improvements and replacements and, to a lesser extent, the purchase of new equipment.

Project Funding

The Company has been financing the Pipeline and Storage segment and Gathering segment projects mentioned above, as well as the Exploration and Production segment capital expenditures, with cash from operations and both short and long-term borrowings. Going forward, while the Company expects to use cash on hand and cash from operations as the first means of financing these projects, the Company may issue short-term debt as necessary during fiscal 2017 to help meet its capital expenditures needs. The level of short-term borrowings will depend upon the amounts of cash provided by operations, which, in turn, will likely be impacted by natural gas and crude oil prices combined with production from existing wells. As disclosed above, the Company expects to be precluded from issuing new long-term debt until the second half of fiscal 2017 as a means of financing projects.

The Company continuously evaluates capital expenditures and potential investments in corporations, partnerships, and other business entities. The amounts are subject to modification for opportunities such as the acquisition of attractive oil and gas properties, natural gas storage facilities and the expansion of natural gas transmission line capacities. While the majority of capital expenditures in the Utility segment are necessitated by the continued need for replacement and upgrading of mains and service lines, the magnitude of future capital

expenditures or other investments in the Company's other business segments depends, to a large degree, upon market conditions.

FINANCING CASH FLOW

The Company had no consolidated short-term debt outstanding at September 30, 2016 and September 30, 2015. The maximum amount of short-term debt outstanding during the year ended September 30, 2016 was \$62.4 million. While the Company did not have any outstanding commercial paper and short-term notes payable to banks at September 30, 2016, the Company continues to consider short-term debt (consisting of short-term notes payable to banks and commercial paper) an important source of cash for temporarily financing capital expenditures, gas-in-storage inventory, unrecovered purchased gas costs, margin calls on derivative financial instruments, exploration and development expenditures, other working capital needs and repayment of long-term debt. Fluctuations in these items can have a significant impact on the amount and timing of short-term debt.

On September 9, 2016, the Company entered into a Third Amended and Restated Credit Agreement (Credit Agreement) with a syndicate of 14 banks. This Credit Agreement provides a \$750.0 million multi-year unsecured committed revolving credit facility through December 5, 2019. The Credit Agreement also provides a \$500.0 million 364-day unsecured committed revolving credit facility with 11 of the 14 banks through September 8, 2017. The Company also has a number of individual uncommitted or discretionary lines of credit with certain financial institutions for general corporate purposes. Borrowings under the uncommitted lines of credit are made at competitive market rates. The uncommitted credit lines are revocable at the option of the financial institutions and are reviewed on an annual basis. The Company anticipates that its uncommitted lines of credit generally will be renewed or substantially replaced by similar lines.

The total amount available to be issued under the Company's commercial paper program is \$500.0 million. The commercial paper program is backed by the Credit Agreement, which provides that the Company's debt to capitalization ratio will not exceed .675 at the last day of any fiscal quarter through September 30, 2017, or .65 at the last day of any fiscal quarter from October 1, 2017 through December 5, 2019. At September 30, 2016, the Company's debt to capitalization ratio (as calculated under the facility) was .58. The constraints specified in the Credit Agreement would have permitted an additional \$1.08 billion in short-term and/or long-term debt to be outstanding (further limited by the indenture covenants discussed below) before the Company's debt to capitalization ratio exceeded .675.

A downgrade in the Company's credit ratings could increase borrowing costs, negatively impact the availability of capital from banks, commercial paper purchasers and other sources, and require the Company's subsidiaries to post letters of credit, cash or other assets as collateral with certain counterparties. If the Company is not able to maintain investment-grade credit ratings, it may not be able to access commercial paper markets. However, the Company expects that it could borrow under its credit facilities or rely upon other liquidity sources, including cash provided by operations.

The Credit Agreement contains a cross-default provision whereby the failure by the Company or its significant subsidiaries to make payments under other borrowing arrangements, or the occurrence of certain events affecting those other borrowing arrangements, could trigger an obligation to repay any amounts outstanding under the Credit Agreement. In particular, a repayment obligation could be triggered if (i) the Company or any of its significant subsidiaries fails to make a payment when due of any principal or interest on any other indebtedness aggregating \$40.0 million or more or (ii) an event occurs that causes, or would permit the holders of any other indebtedness aggregating \$40.0 million or more to cause, such indebtedness to become due prior to its stated maturity. As of September 30, 2016, the Company did not have any debt outstanding under the Credit Agreement.

On June 25, 2015, the Company issued \$450.0 million of 5.20% notes due July 15, 2025. After deducting underwriting discounts and commissions, the net proceeds to the Company amounted to \$444.6 million. The holders of the notes may require the Company to repurchase their notes at a price equal to 101% of the principal amount in the event of a change in control and a ratings downgrade to a rating below investment grade. The proceeds of this debt issuance were used for general corporate purposes, including the reduction of short-term debt.

None of the Company's long-term debt at September 30, 2016 and 2015 had a maturity date within the following twelve-month period.

The Company's embedded cost of long-term debt was 5.53% at both September 30, 2016 and September 30, 2015. Refer to "Interest Rate Risk" in this Item for a more detailed breakdown of the Company's embedded cost of long-term debt.

Under the Company's existing indenture covenants, at September 30, 2016, the Company expects to be precluded from issuing additional long-term unsecured indebtedness until the second half of fiscal 2017 as a result of impairments of its oil and gas properties recognized during the years ended September 30, 2016 and 2015, as discussed above. The 1974 indenture would not preclude the Company from issuing new indebtedness to replace maturing debt and the Company expects that it could borrow under its credit facilities. The Company's present liquidity position is believed to be adequate to satisfy known demands. Please refer to the Critical Accounting Estimates section above for a sensitivity analysis concerning commodity price changes and their impact on the ceiling test.

The Company's 1974 indenture pursuant to which \$98.7 million (or 4.7%) of the Company's long-term debt (as of September 30, 2016) was issued, contains a cross-default provision whereby the failure by the Company to perform certain obligations under other borrowing arrangements could trigger an obligation to repay the debt outstanding under the indenture. In particular, a repayment obligation could be triggered if the Company fails (i) to pay any scheduled principal or interest on any debt under any other indenture or agreement or (ii) to perform any other term in any other such indenture or agreement, and the effect of the failure causes, or would permit the holders of the debt to cause, the debt under such indenture or agreement to become due prior to its stated maturity, unless cured or waived.

OFF-BALANCE SHEET ARRANGEMENTS

The Company has entered into certain off-balance sheet financing arrangements. These financing arrangements are primarily operating leases. The Company's consolidated subsidiaries have operating leases, the majority of which are with the Exploration and Production segment and Corporate operations, having a remaining lease commitment of approximately \$28.6 million. These leases have been entered into for the use of compressors, drilling rigs, buildings and other items and are accounted for as operating leases.

CONTRACTUAL OBLIGATIONS

The following table summarizes the Company's expected future contractual cash obligations as of September 30, 2016, and the twelve-month periods over which they occur:

	Payments by Expected Maturity Dates						
	2017	2018	2019	2020	2021	Thereafter	Total
	(Millions)						
Long-Term Debt, including interest expense(1)	\$ 115.3	\$ 406.4	\$ 336.7	\$ 74.0	\$ 74.0	\$ 1,687.4	\$ 2,693.8
Operating Lease Obligations	\$ 13.7	\$ 5.8	\$ 4.2	\$ 3.0	\$ 1.5	\$ 0.4	\$ 28.6
Purchase Obligations:							
Gas Purchase Contracts(2)	\$ 180.1	\$ 16.9	\$ 2.1	\$ —	\$ —	\$ —	\$ 199.1
Transportation and Storage Contracts(3)	\$ 61.1	\$ 79.6	\$ 92.6	\$ 95.3	\$ 83.8	\$ 794.4	\$ 1,206.8
Hydraulic Fracturing and Fuel Obligations	\$ 25.2	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 25.2
Pipeline, Compressor and Gathering Projects	\$ 52.5	\$ 7.2	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.5	\$ 60.5
Other	\$ 19.5	\$ 9.4	\$ 8.0	\$ 5.9	\$ 5.6	\$ 4.8	\$ 53.2

(1) Refer to Note E — Capitalization and Short-Term Borrowings, as well as the table under Interest Rate Risk in the Market Risk Sensitive Instruments section below, for the amounts excluding interest expense.

(2) Gas prices are variable based on the NYMEX prices adjusted for basis.

- (3) Transportation service contractual obligations include the following precedent agreements executed by the Exploration and Production segment for transportation of Appalachian gas: \$14.2 million for 2017, \$31.6 million for 2018, \$44.4 million for 2019, \$46.3 million for 2020, \$47.0 million for 2021 and \$703.0 million thereafter.

The Company has other long-term obligations recorded on its Consolidated Balance Sheets that are not reflected in the table above. Such long-term obligations include pension and other post-retirement liabilities, asset retirement obligations, deferred income tax liabilities, various regulatory liabilities, derivative financial instrument liabilities and other deferred credits (the majority of which consist of liabilities for non-qualified benefit plans, deferred compensation liabilities, environmental liabilities and workers compensation liabilities).

The Company has made certain other guarantees on behalf of its subsidiaries. The guarantees relate primarily to: (i) obligations under derivative financial instruments, which are included on the Consolidated Balance Sheets in accordance with the authoritative guidance (see Item 7, MD&A under the heading “Critical Accounting Estimates - Accounting for Derivative Financial Instruments”); (ii) NFR obligations to purchase gas or to purchase gas transportation/storage services where the amounts due on those obligations each month are included on the Consolidated Balance Sheets as a current liability; and (iii) other obligations which are reflected on the Consolidated Balance Sheets. The Company believes that the likelihood it would be required to make payments under the guarantees is remote, and therefore has not included them in the table above.

OTHER MATTERS

In addition to the environmental and other matters discussed in this Item 7 and in Item 8 at Note I — Commitments and Contingencies, the Company is involved in other litigation and regulatory matters arising in the normal course of business. These other matters may include, for example, negligence claims and tax, regulatory or other governmental audits, inspections, investigations or other proceedings. These matters may involve state and federal taxes, safety, compliance with regulations, rate base, cost of service and purchased gas cost issues, among other things. While these normal-course matters could have a material effect on earnings and cash flows in the period in which they are resolved, they are not expected to change materially the Company’s present liquidity position, nor are they expected to have a material adverse effect on the financial condition of the Company.

The Company has a tax-qualified, noncontributory defined-benefit retirement plan (Retirement Plan). The Company has been making contributions to the Retirement Plan over the last several years and anticipates that it will continue making contributions to the Retirement Plan. During 2016, the Company contributed \$7.0 million to the Retirement Plan. The Company anticipates that the annual contribution to the Retirement Plan in 2017 will be in the range of \$15.0 million to \$20.0 million. The Company expects that all subsidiaries having employees covered by the Retirement Plan will make contributions to the Retirement Plan. The funding of such contributions will come from amounts collected in rates in the Utility and Pipeline and Storage segments or through short-term borrowings or cash from operations.

The Company provides health care and life insurance benefits (other post-retirement benefits) for a majority of its retired employees. The Company has established VEBA trusts and 401(h) accounts for its other post-retirement benefits. The Company has been making contributions to its VEBA trusts and 401(h) accounts over the last several years and anticipates that it will continue making contributions to the VEBA trusts and 401(h) accounts. During 2016, the Company contributed \$2.6 million to its VEBA trusts and 401(h) accounts. The Company anticipates that the annual contribution to its VEBA trusts and 401(h) accounts in 2017 will be in the range of \$3.0 million to \$5.0 million. The funding of such contributions will come from amounts collected in rates in the Utility and Pipeline and Storage segments.

MARKET RISK SENSITIVE INSTRUMENTS

Energy Commodity Price Risk

The Company uses various derivative financial instruments (derivatives), including price swap agreements and futures contracts, as part of the Company’s overall energy commodity price risk management strategy in its Exploration and Production and Energy Marketing segments. Under this strategy, the Company manages a portion of the market risk associated with fluctuations in the price of natural gas and crude oil, thereby attempting to

provide more stability to operating results. The Company has operating procedures in place that are administered by experienced management to monitor compliance with the Company's risk management policies. The derivatives are not held for trading purposes. The fair value of these derivatives, as shown below, represents the amount that the Company would receive from, or pay to, the respective counterparties at September 30, 2016 to terminate the derivatives. However, the tables below and the fair value that is disclosed do not consider the physical side of the natural gas and crude oil transactions that are related to the financial instruments.

On July 21, 2010, the Dodd-Frank Act was signed into law. The Dodd-Frank Act includes provisions related to the swaps and over-the-counter derivatives markets. Certain provisions of the Dodd-Frank Act related to derivatives became effective July 16, 2011, but other provisions related to derivatives have or will become effective as federal agencies (including the CFTC, various banking regulators and the SEC) adopt rules to implement the law. Among other things, the Dodd-Frank Act (1) regulates certain participants in the swaps markets, including new entities defined as "swap dealers" and "major swap participants," (2) requires clearing and exchange-trading of certain swaps that the CFTC determines must be cleared, (3) requires reporting and recordkeeping of swaps, and (4) enhances the CFTC's enforcement authority, including the authority to establish position limits on derivatives and increases penalties for violations of the Commodity Exchange Act. For purposes of the Dodd-Frank Act, under rules adopted by the SEC and/or CFTC, the Company believes that it qualifies as a non-financial end user of derivatives, that is, as a non-financial entity that uses derivatives to hedge or mitigate commercial risk. Nevertheless, other rules that have been adopted or are being developed could have a significant impact on the Company. For example, the CFTC has imposed numerous registration, swaps documentation, business conduct, reporting, and recordkeeping requirements on swap dealers and major swap participants, which frequently are counterparties to the Company's derivative hedging transactions. While many of the final rules adopted by the CFTC and other regulators place specific conditions on the operations of swap dealers and major swap participants, concern remains that swap dealers and major swap participants will pass along their increased costs stemming from the final and proposed rules through higher transaction costs and prices or other direct or indirect costs. For example, the Dodd-Frank Act requires that certain swaps be cleared and traded on exchanges or swap execution facilities, with certain exceptions for swaps that end-users such as the Company use to hedge or mitigate commercial risk. While the Company expects to be excluded from these clearing and trading requirements for swaps used to hedge its commercial risks, there may be increased transaction costs or decreased liquidity with respect to entering into such uncleared and non-exchange traded swaps. Also, during the fourth calendar quarter of 2015, the bank regulators and the CFTC, respectively, adopted final margin rules that apply to swap dealers and major swap participants with respect to uncleared swaps. While these rules do not impose a requirement on swap dealers and major swap participants to collect margin for uncleared swaps from non-financial end users such as the Company, the obligations may increase the costs of uncleared swaps. For example, among other things, to fulfill obligations imposed on them under the rules, swap dealers may seek to negotiate collateral or other credit arrangements in their swap agreements with counterparties, which would increase the cost of transactions in uncleared swaps and affect the Company's liquidity and reduce our available cash. In May 2016, the CFTC issued a supplemental proposal to its position limit rules that would impose speculative position limits on positions in 28 core physical commodity contracts as well as economically equivalent futures, options and swaps. While the Company does not intend to enter into positions on a speculative basis, such rules could nevertheless impact the ability of the Company to enter into certain derivative hedging transactions with respect to such commodities. If we reduce our use of hedging transactions as a result of final regulations to be issued by the CFTC, our results of operations may become more volatile and our cash flows may be less predictable. The Dodd-Frank Act may also increase costs for derivative recordkeeping, reporting, documentation, position limit compliance, and other compliance; cause parties to materially alter the terms of derivative contracts; cause parties to restructure certain derivative contracts; reduce the availability of derivatives to protect against risks that the Company encounters or to optimize assets; reduce the Company's ability to monetize or restructure existing derivative contracts; and increase the Company's exposure to less creditworthy counterparties, all of which could increase the Company's business costs. Finally, the CFTC has adopted additional anti-market manipulation, anti-fraud and disruptive trading practices regulations that prohibit, among other things, fraud and price manipulation in the physical commodities, futures, options and swaps markets. Given the novelty of the regulations under the Dodd-Frank Act, it is difficult to predict how the evolving enforcement priorities of the CFTC will impact our business. Should we violate the laws regulating hedging activities or regulations promulgated by the CFTC, we could be subject to CFTC enforcement action and

material penalties and sanctions. The Company continues to monitor these developments but cannot predict the impact the Dodd-Frank Act may ultimately have on its operations.

The accounting rules for fair value measurements and disclosures require consideration of the impact of nonperformance risk (including credit risk) from a market participant perspective in the measurement of the fair value of assets and liabilities. At September 30, 2016, the Company determined that nonperformance risk would have no material impact on its financial position or results of operation. To assess nonperformance risk, the Company considered information such as any applicable collateral posted, master netting arrangements, and applied a market-based method by using the counterparty's (assuming the derivative is in a gain position) or the Company's (assuming the derivative is in a loss position) credit default swaps rates.

The following tables disclose natural gas and crude oil price swap information by expected maturity dates for agreements in which the Company receives a fixed price in exchange for paying a variable price as quoted in various national natural gas publications or on the NYMEX. Notional amounts (quantities) are used to calculate the contractual payments to be exchanged under the contract. The weighted average variable prices represent the weighted average settlement prices by expected maturity date as of September 30, 2016. At September 30, 2016, the Company had not entered into any natural gas or crude oil price swap agreements extending beyond 2021.

Natural Gas Price Swap Agreements

	Expected Maturity Dates					
	2017	2018	2019	2020	2021	Total
Notional Quantities (Equivalent Bcf)	64.0	34.6	31.6	23.2	5.2	158.6
Weighted Average Fixed Rate (per Mcf)	\$ 4.20	\$ 3.53	\$ 3.27	\$ 3.17	\$ 3.13	\$ 3.68
Weighted Average Variable Rate (per Mcf)	\$ 3.12	\$ 3.12	\$ 2.94	\$ 2.92	\$ 3.09	\$ 3.05

Of the total Bcf above, 1.6 Bcf is accounted for as fair value hedges at a weighted average fixed rate of \$3.97 per Mcf. The remaining 157.0 Bcf are accounted for as cash flow hedges at a weighted average fixed rate of \$3.53 per Mcf.

At September 30, 2016, the Company had long (purchased) swaps covering 2.3 Bcf extending through 2019 at a weighted average fixed rate of \$3.64 per Mcf and a weighted average settlement rate of \$3.13 per Mcf. The Company had short (sold) swaps covering 156.3 Bcf extending through 2021 at a weighted average fixed rate of \$3.68 per Mcf and a weighted average settlement rate of \$3.05 per Mcf at September 30, 2016.

At September 30, 2015, the Company had long swaps covering 2.8 Bcf extending through 2019 at a weighted average fixed rate of \$3.71 per Mcf and a weighted average settlement rate of \$3.04 per Mcf. The Company had short swaps covering 174.3 Bcf extending through 2020 at a weighted average fixed rate of \$4.06 per Mcf and a weighted average settlement rate of \$2.86 per Mcf.

Crude Oil Price Swap Agreements

	2017	2018	2019	Total
Notional Quantities (Equivalent Bbls)	1,128,000	507,000	120,000	1,755,000
Weighted Average Fixed Rate (per Bbl)	\$ 66.05	\$ 57.66	\$ 53.00	\$ 62.73
Weighted Average Variable Rate (per Bbl)	\$ 50.80	\$ 53.17	\$ 54.57	\$ 51.74

At September 30, 2016, the Company would have received from its respective counterparties an aggregate of approximately \$95.2 million to terminate the natural gas price swap agreements outstanding at that date. The Company would have received from its respective counterparties an aggregate of approximately \$19.1 million to terminate the crude oil price swap agreements outstanding at September 30, 2016.

At September 30, 2015, the Company had natural gas price swap agreements covering 177.1 Bcf at a weighted average fixed rate of \$4.05 per Mcf. The Company also had crude oil price swap agreements covering 2,196,000 Bbls at a weighted average fixed rate of \$84.21 per Bbl.

The following table discloses the net contract volume purchased (sold), weighted average contract prices and weighted average settlement prices by expected maturity date for futures contracts used to manage natural gas price risk. At September 30, 2016, the Company did not hold any futures contracts with maturity dates extending beyond 2019 (the futures contracts maturing in 2020 were insignificant).

Futures Contracts

	Expected Maturity Dates			
	2017	2018	2019	Total
Net Contract Volume Purchased (Sold) (Equivalent Bcf)	3.7	2.8	0.5	7.0
Weighted Average Contract Price (per Mcf)	\$ 3.58	\$ 3.39	\$ 3.13	\$ 3.52
Weighted Average Settlement Price (per Mcf)	\$ 3.42	\$ 3.33	\$ 3.03	\$ 3.38

At September 30, 2016, the Company had long (purchased) contracts covering 10.5 Bcf of gas extending through 2019 at a weighted average contract price of \$3.46 per Mcf and a weighted average settlement price of \$3.39 per Mcf. All of this is accounted for as fair value hedges and are used by the Company's Energy Marketing segment to hedge against rising prices, a risk to which this segment is exposed due to the fixed price gas sales commitments that it enters into with certain residential, commercial, industrial, public authority and wholesale customers. The Company would have paid \$0.8 million to terminate these contracts at September 30, 2016.

At September 30, 2016, the Company had short (sold) contracts covering 3.5 Bcf of gas extending through 2019 at a weighted average contract price of \$3.71 per Mcf and a weighted average settlement price of \$3.37 per Mcf. Of this amount, 2.9 Bcf is accounted for as cash flow hedges as these contracts relate to the anticipated sale of natural gas by the Company's Energy Marketing segment. The remaining 0.6 Bcf is accounted for as fair value hedges, the majority of which are used to hedge against falling prices, a risk to which the Energy Marketing segment is exposed due to the fixed price gas purchase commitments that it enters into with certain natural gas suppliers. The Company would have received \$1.1 million to terminate these contracts at September 30, 2016.

At September 30, 2015, the Company had long (purchased) contracts covering 17.8 Bcf of gas extending through 2018 at a weighted average contract price of \$3.81 per Mcf and a weighted average settlement price of \$2.95 per Mcf.

At September 30, 2015, the Company had short (sold) contracts covering 6.4 Bcf of gas extending through 2018 at a weighted average contract price of \$4.03 per Mcf and a weighted average settlement price of \$3.04 per Mcf.

Foreign Exchange Risk

The Company uses foreign exchange forward contracts to manage the risk of currency fluctuations associated with transportation costs denominated in Canadian currency in the Exploration and Production segment. All of these transactions are forecasted.

The following table discloses foreign exchange contract information by expected maturity dates. The Company receives a fixed price in exchange for paying a variable price as noted in the Canadian to U.S. dollar forward exchange rates. Notional amounts (Canadian dollars) are used to calculate the contractual payments to be exchanged under contract. The weighted average variable prices represent the weighted average settlement prices by expected maturity date as of September 30, 2016. At September 30, 2016, the Company had not entered into any foreign currency exchange contracts extending beyond 2026.

	Expected Maturity Dates						Total
	2017	2018	2019	2020	2021	Thereafter	
Notional Quantities (Canadian Dollar in millions)	\$ 12.0	\$ 12.0	\$ 12.0	\$ 12.0	\$ 6.0	\$ 24.5	\$ 78.5
Weighted Average Fixed Rate (\$Cdn/\$US)	\$ 1.24	\$ 1.24	\$ 1.23	\$ 1.22	\$ 1.29	\$ 1.27	\$ 1.25
Weighted Average Variable Rate (\$Cdn/\$US)	\$ 1.28	\$ 1.28	\$ 1.28	\$ 1.27	\$ 1.29	\$ 1.28	\$ 1.28

At September 30, 2016, absent other positions with the same counterparties, the Company would have paid its respective counterparties an aggregate of \$2.3 million to terminate these foreign exchange contracts.

Refer to Item 8 at Note G — Financial Instruments for a discussion of the Company’s exposure to credit risk related to its derivative financial instruments.

Interest Rate Risk

The fair value of long-term fixed rate debt is \$2.3 billion at September 30, 2016. This fair value amount is not intended to reflect principal amounts that the Company will ultimately be required to pay. The following table presents the principal cash repayments and related weighted average interest rates by expected maturity date for the Company’s long-term fixed rate debt:

	Principal Amounts by Expected Maturity Dates						Total
	2017	2018	2019	2020	2021	Thereafter	
	(Dollars in millions)						
Long-Term Fixed Rate Debt	\$ —	\$ 300.0	\$ 250.0	\$ —	\$ 500.0	\$ 1,049.0	\$ 2,099.0
Weighted Average Interest Rate Paid	—	6.5%	8.8%	—	4.9%	4.7%	5.5%

RATE AND REGULATORY MATTERS

Utility Operation

Delivery rates for both the New York and Pennsylvania divisions are regulated by the states’ respective public utility commissions and typically are changed only when approved through a procedure known as a “rate case.” Although the Pennsylvania division does not have a rate case on file, see below for a description of the current rate proceedings affecting the New York division. In both jurisdictions, delivery rates do not reflect the recovery of purchased gas costs. Prudently-incurred gas costs are recovered through operation of automatic adjustment clauses, and are collected primarily through a separately-stated “supply charge” on the customer bill.

New York Jurisdiction

Customer delivery rates charged by Distribution Corporation’s New York division were established in a rate order issued on December 21, 2007 by the NYPSC. In connection with an efficiency and conservation program, the rate order approved a revenue decoupling mechanism. The revenue decoupling mechanism “decouples” revenues from throughput by enabling the Company to collect from small volume customers its allowed margin on average weather normalized usage per customer. The effect of the revenue decoupling mechanism is to render the Company financially indifferent to throughput decreases resulting from conservation.

On April 28, 2016, Distribution Corporation commenced a rate case by filing proposed tariff amendments and supporting testimony requesting approval to increase its annual revenues by approximately \$41.7 million. Distribution Corporation explained in the filing that its request for rate relief was necessitated by a revenue requirement driven primarily by rate base growth, higher operating expense and higher depreciation expense that are not reflected in current rates, among other things. The rate filing includes a proposal for system infrastructure modernization that includes the acceleration of Distribution Corporation’s replacement of certain gas mains, which are of a type generically classified by the NYPSC as “leak prone pipe”. The NYPSC may accept, reject or modify Distribution Corporation’s filing. On October 19, 2016, the Company filed a Notice of Impending Confidential Settlement Negotiations notifying the NYPSC that Distribution Corporation, Department of Public Service Staff

and other interested parties were entering into settlement discussions, which may result in settlement of some or all of the issues raised in the proceeding. The outcome of the proceeding cannot be ascertained at this time.

Pennsylvania Jurisdiction

Distribution Corporation's current delivery charges in its Pennsylvania jurisdiction were approved by the PaPUC on November 30, 2006 as part of a settlement agreement that became effective January 1, 2007.

Pipeline and Storage

Supply Corporation's current rate settlement requires a rate case filing no later than December 31, 2019 and prohibits any party from seeking to initiate a rate case proceeding before September 30, 2017. Under the settlement, Supply Corporation reduced its maximum reservation, capacity, demand and deliverability rates by 2% on November 1, 2015 and will reduce those rates by an additional 2% on November 1, 2016.

By order dated January 21, 2016, the FERC began a NGA Section 5 rate review of Empire's rates. As required by that order, Empire filed a Cost and Revenue Study on April 5, 2016. On May 25, 2016, Empire reached a settlement in principle on this matter that would, among other things, reduce certain of Empire's maximum transportation rates over a 14-month period, which, based on current contracts, is estimated to reduce Empire's revenues on a yearly basis by between \$3 million to \$4 million. The settlement also reduces Empire's depreciation rate from 2.5% to 2%. In addition, the settlement provides an annual revenue sharing mechanism, pursuant to which non-expansion transportation revenues exceeding \$73.5 million are shared on a tiered basis. Under the settlement, Empire will be required to make a general rate filing no later than July 1, 2021. On July 22, 2016, Empire filed the settlement at the FERC and on October 20, 2016, the FERC issued an order conditionally approving the settlement. The settlement is not expected to have a material impact on the Company's financial condition.

ENVIRONMENTAL MATTERS

The Company is subject to various federal, state and local laws and regulations relating to the protection of the environment. The Company has established procedures for the ongoing evaluation of its operations to identify potential environmental exposures and comply with regulatory requirements.

For further discussion of the Company's environmental exposures, refer to Item 8 at Note I — Commitments and Contingencies under the heading "Environmental Matters."

Legislative and regulatory measures to address climate change and greenhouse gas emissions are in various phases of discussion or implementation. In the United States, these efforts include legislative proposals and EPA regulations at the federal level, actions at the state level, and private party litigation related to greenhouse gas emissions. While the U.S. Congress has from time to time considered legislation aimed at reducing emissions of greenhouse gases, Congress has not yet passed any federal climate change legislation and we cannot predict when or if Congress will pass such legislation and in what form. In the absence of such legislation, the EPA is regulating greenhouse gas emissions pursuant to the authority granted to it by the federal Clean Air Act. For example, in April 2012, the EPA adopted rules which restrict emissions associated with oil and natural gas drilling. Recently, the EPA adopted final regulations that set methane and volatile organic compound emissions standards for new or modified oil and gas emissions sources. These new rules impose more stringent leak detection and repair requirements, and further address reporting and control of methane and volatile organic compound emissions. In addition, the U.S. Congress has from time to time considered bills that would establish a cap-and-trade program to reduce emissions of greenhouse gases. With respect to its operations in California, the Company currently complies with California cap-and-trade guidelines, which increases the Company's cost of environmental compliance in its Exploration and Production segment operations. Legislation or regulation that aims to reduce greenhouse gas emissions could also include carbon taxes, restrictive permitting, increased efficiency standards, and incentives or mandates to conserve energy or use renewable energy sources. Federal, state or local governments may, for example, provide tax advantages and other subsidies to support alternative energy sources, mandate the use of specific fuels or technologies, or promote research into new technologies to reduce the cost and increase the scalability of alternative energy sources. These climate change and greenhouse gas initiatives could increase the Company's cost of environmental compliance by requiring the Company to install new equipment to reduce

emissions from larger facilities and/or purchase emission allowances. They could also delay or otherwise negatively affect efforts to obtain permits and other regulatory approvals with regard to existing and new facilities, impose additional monitoring and reporting requirements, and reduce demand for oil and natural gas. But legislation or regulation that sets a price on or otherwise restricts carbon emissions could also benefit the Company by increasing demand for natural gas, because substantially fewer carbon emissions per Btu of heat generated are associated with the use of natural gas than with certain alternate fuels such as coal and oil. The effect (material or not) on the Company of any new legislative or regulatory measures will depend on the particular provisions that are ultimately adopted.

NEW AUTHORITATIVE ACCOUNTING AND FINANCIAL REPORTING GUIDANCE

For discussion of the recently issued authoritative accounting and financial reporting guidance, refer to Item 8 at Note A — Summary of Significant Accounting Policies under the heading “New Authoritative Accounting and Financial Reporting Guidance.”

EFFECTS OF INFLATION

Although the rate of inflation has been relatively low over the past few years, the Company’s operations remain sensitive to increases in the rate of inflation because of its capital spending and the regulated nature of a significant portion of its business.

SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS

The Company is including the following cautionary statement in this Form 10-K to make applicable and take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 for any forward-looking statements made by, or on behalf of, the Company. Forward-looking statements include statements concerning plans, objectives, goals, projections, strategies, future events or performance, and underlying assumptions and other statements which are other than statements of historical facts. From time to time, the Company may publish or otherwise make available forward-looking statements of this nature. All such subsequent forward-looking statements, whether written or oral and whether made by or on behalf of the Company, are also expressly qualified by these cautionary statements. Certain statements contained in this report, including, without limitation, statements regarding future prospects, plans, objectives, goals, projections, estimates of oil and gas quantities, strategies, future events or performance and underlying assumptions, capital structure, anticipated capital expenditures, completion of construction projects, projections for pension and other post-retirement benefit obligations, impacts of the adoption of new accounting rules, and possible outcomes of litigation or regulatory proceedings, as well as statements that are identified by the use of the words “anticipates,” “estimates,” “expects,” “forecasts,” “intends,” “plans,” “predicts,” “projects,” “believes,” “seeks,” “will,” “may,” and similar expressions, are “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995 and accordingly involve risks and uncertainties which could cause actual results or outcomes to differ materially from those expressed in the forward-looking statements. The Company’s expectations, beliefs and projections are expressed in good faith and are believed by the Company to have a reasonable basis, but there can be no assurance that management’s expectations, beliefs or projections will result or be achieved or accomplished. In addition to other factors and matters discussed elsewhere herein, the following are important factors that, in the view of the Company, could cause actual results to differ materially from those discussed in the forward-looking statements:

1. Delays or changes in costs or plans with respect to Company projects or related projects of other companies, including difficulties or delays in obtaining necessary governmental approvals, permits or orders or in obtaining the cooperation of interconnecting facility operators;
2. Governmental/regulatory actions, initiatives and proceedings, including those involving rate cases (which address, among other things, target rates of return, rate design and retained natural gas), environmental/safety requirements, affiliate relationships, industry structure, and franchise renewal;
3. Impairments under the SEC’s full cost ceiling test for natural gas and oil reserves;
4. Changes in the price of natural gas or oil;

5. Financial and economic conditions, including the availability of credit, and occurrences affecting the Company's ability to obtain financing on acceptable terms for working capital, capital expenditures and other investments, including any downgrades in the Company's credit ratings and changes in interest rates and other capital market conditions;
6. Factors affecting the Company's ability to successfully identify, drill for and produce economically viable natural gas and oil reserves, including among others geology, lease availability, title disputes, weather conditions, shortages, delays or unavailability of equipment and services required in drilling operations, insufficient gathering, processing and transportation capacity, the need to obtain governmental approvals and permits, and compliance with environmental laws and regulations;
7. Changes in laws, regulations or judicial interpretations to which the Company is subject, including those involving derivatives, taxes, safety, employment, climate change, other environmental matters, real property, and exploration and production activities such as hydraulic fracturing;
8. Changes in price differentials between similar quantities of natural gas or oil at different geographic locations, and the effect of such changes on commodity production, revenues and demand for pipeline transportation capacity to or from such locations;
9. Other changes in price differentials between similar quantities of natural gas or oil having different quality, heating value, hydrocarbon mix or delivery date;
10. The cost and effects of legal and administrative claims against the Company or activist shareholder campaigns to effect changes at the Company;
11. Uncertainty of oil and gas reserve estimates;
12. Significant differences between the Company's projected and actual production levels for natural gas or oil;
13. Changes in demographic patterns and weather conditions;
14. Changes in the availability, price or accounting treatment of derivative financial instruments;
15. Changes in economic conditions, including global, national or regional recessions, and their effect on the demand for, and customers' ability to pay for, the Company's products and services;
16. The creditworthiness or performance of the Company's key suppliers, customers and counterparties;
17. Economic disruptions or uninsured losses resulting from major accidents, fires, severe weather, natural disasters, terrorist activities, acts of war, cyber attacks or pest infestation;
18. Significant differences between the Company's projected and actual capital expenditures and operating expenses;
19. Changes in laws, actuarial assumptions, the interest rate environment and the return on plan/trust assets related to the Company's pension and other post-retirement benefits, which can affect future funding obligations and costs and plan liabilities;
20. Increasing health care costs and the resulting effect on health insurance premiums and on the obligation to provide other post-retirement benefits; or
21. Increasing costs of insurance, changes in coverage and the ability to obtain insurance.

The Company disclaims any obligation to update any forward-looking statements to reflect events or circumstances after the date hereof.

Item 7A ***Quantitative and Qualitative Disclosures About Market Risk***

Refer to the "Market Risk Sensitive Instruments" section in Item 7, MD&A.

Item 8 ***Financial Statements and Supplementary Data***

Index to Financial Statements

	<u>Page</u>
Financial Statements and Financial Statement Schedule:	
 <u>Report of Independent Registered Public Accounting Firm</u>	 <u>64</u>
<u>Consolidated Statements of Income and Earnings Reinvested in the Business, three years ended September 30, 2016</u>	<u>65</u>
<u>Consolidated Statements of Comprehensive Income, three years ended September 30, 2016</u>	<u>66</u>
<u>Consolidated Balance Sheets at September 30, 2016 and 2015</u>	<u>67</u>
<u>Consolidated Statements of Cash Flows, three years ended September 30, 2016</u>	<u>68</u>
<u>Notes to Consolidated Financial Statements</u>	<u>69</u>
<u>Schedule II — Valuation and Qualifying Accounts for the three years ended September 30, 2016</u>	<u>121</u>

All other schedules are omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or Notes thereto.

Supplementary Data

Supplementary data that is included in Note K — Quarterly Financial Data (unaudited) and Note M — Supplementary Information for Oil and Gas Producing Activities (unaudited), appears under this Item, and reference is made thereto.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of National Fuel Gas Company:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of National Fuel Gas Company and its subsidiaries at September 30, 2016 and September 30, 2015, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2016, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting under item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

/s/ P RICEWATERHOUSE C OOPERS LLP

Buffalo, New York
November 18, 2016

NATIONAL FUEL GAS COMPANY
CONSOLIDATED STATEMENTS OF INCOME AND EARNINGS
REINVESTED IN THE BUSINESS

	Year Ended September 30		
	2016	2015	2014
	(Thousands of dollars, except per common share amounts)		
INCOME			
Operating Revenues:			
Utility and Energy Marketing Revenues	\$ 624,602	\$ 860,618	\$ 1,103,149
Exploration and Production and Other Revenues	611,766	696,709	808,595
Pipeline and Storage and Gathering Revenues	216,048	203,586	201,337
	1,452,416	1,760,913	2,113,081
Operating Expenses:			
Purchased Gas	147,982	349,984	605,838
Operation and Maintenance:			
Utility and Energy Marketing	192,512	203,249	196,534
Exploration and Production and Other	160,201	184,024	188,622
Pipeline and Storage and Gathering	88,801	82,730	77,922
Property, Franchise and Other Taxes	81,714	89,564	90,711
Depreciation, Depletion and Amortization	249,417	336,158	383,781
Impairment of Oil and Gas Producing Properties	948,307	1,126,257	—
	1,868,934	2,371,966	1,543,408
Operating Income (Loss)	(416,518)	(611,053)	569,673
Other Income (Expense):			
Other Income	9,820	8,039	9,461
Interest Income	4,235	3,922	4,170
Interest Expense on Long-Term Debt	(117,347)	(95,916)	(90,194)
Other Interest Expense	(3,697)	(3,555)	(4,083)
Income (Loss) Before Income Taxes	(523,507)	(698,563)	489,027
Income Tax Expense (Benefit)	(232,549)	(319,136)	189,614
Net Income (Loss) Available for Common Stock	(290,958)	(379,427)	299,413
EARNINGS REINVESTED IN THE BUSINESS			
Balance at Beginning of Year	1,103,200	1,614,361	1,442,617
	812,242	1,234,934	1,742,030
Dividends on Common Stock	(135,881)	(131,734)	(127,669)
Balance at End of Year	\$ 676,361	\$ 1,103,200	\$ 1,614,361
Earnings Per Common Share:			
Basic:			
Net Income (Loss) Available for Common Stock	\$ (3.43)	\$ (4.50)	\$ 3.57
Diluted:			
Net Income (Loss) Available for Common Stock	\$ (3.43)	\$ (4.50)	\$ 3.52
Weighted Average Common Shares Outstanding:			
Used in Basic Calculation	84,847,993	84,387,755	83,929,989
Used in Diluted Calculation	84,847,993	84,387,755	84,952,347

See Notes to Consolidated Financial Statements

NATIONAL FUEL GAS COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended September 30		
	2016	2015	2014
	(Thousands of dollars)		
Net Income (Loss) Available for Common Stock	\$ (290,958)	\$ (379,427)	\$ 299,413
Other Comprehensive Income (Loss), Before Tax:			
Decrease in the Funded Status of the Pension and Other Post-Retirement Benefit Plans	(21,378)	(31,538)	(8,280)
Reclassification Adjustment for Amortization of Prior Year Funded Status of the Pension and Other Post-Retirement Benefit Plans	10,068	9,217	9,203
Unrealized Gain (Loss) on Securities Available for Sale Arising During the Period	1,524	(3,234)	3,863
Unrealized Gain on Derivative Financial Instruments Arising During the Period	60,493	381,018	5,334
Reclassification Adjustment for Realized Gains on Securities Available for Sale in Net Income	(1,374)	(591)	(662)
Reclassification Adjustment for Realized (Gains) Losses on Derivative Financial Instruments in Net Income	(220,919)	(184,953)	17,647
Other Comprehensive Income (Loss), Before Tax	(171,586)	169,919	27,105
Income Tax Benefit Related to the Decrease in the Funded Status of the Pension and Other Post-Retirement Benefit Plans	(8,351)	(11,922)	(2,720)
Reclassification Adjustment for Income Tax Benefit Related to the Amortization of the Prior Year Funded Status of the Pension and Other Post-Retirement Benefit Plans	3,723	3,375	3,370
Income Tax Expense (Benefit) Related to Unrealized Gain (Loss) on Securities Available for Sale Arising During the Period	592	(1,195)	1,398
Income Tax Expense Related to Unrealized Gain on Derivative Financial Instruments Arising During the Period	18,648	160,872	529
Reclassification Adjustment for Income Tax Expense on Realized Gains from Securities Available for Sale in Net Income	(527)	(217)	(242)
Reclassification Adjustment for Income Tax Benefit (Expense) on Realized Losses (Gains) from Derivative Financial Instruments in Net Income	(86,659)	(78,345)	9,515
Income Taxes — Net	(72,574)	72,568	11,850
Other Comprehensive Income (Loss)	(99,012)	97,351	15,255
Comprehensive Income (Loss)	\$ (389,970)	\$ (282,076)	\$ 314,668

See Notes to Consolidated Financial Statements

NATIONAL FUEL GAS COMPANY
CONSOLIDATED BALANCE SHEETS

	At September 30	
	2016	2015
	(Thousands of dollars)	
ASSETS		
Property, Plant and Equipment	\$ 9,539,581	\$ 9,261,323
Less — Accumulated Depreciation, Depletion and Amortization	5,085,099	3,929,428
	4,454,482	5,331,895
Current Assets		
Cash and Temporary Cash Investments	129,972	113,596
Hedging Collateral Deposits	1,484	11,124
Receivables — Net of Allowance for Uncollectible Accounts of \$21,109 and \$29,029, Respectively	133,201	105,004
Unbilled Revenue	18,382	20,746
Gas Stored Underground	34,332	34,252
Materials and Supplies — at average cost	33,866	30,414
Unrecovered Purchased Gas Costs	2,440	—
Other Current Assets	59,354	60,665
	413,031	375,801
Other Assets		
Recoverable Future Taxes	177,261	168,214
Unamortized Debt Expense	1,688	2,218
Other Regulatory Assets	320,750	278,227
Deferred Charges	20,978	15,129
Other Investments	110,664	92,990
Goodwill	5,476	5,476
Prepaid Post-Retirement Benefit Costs	17,649	24,459
Fair Value of Derivative Financial Instruments	113,804	270,363
Other	604	167
	768,874	857,243
Total Assets	\$ 5,636,387	\$ 6,564,939
CAPITALIZATION AND LIABILITIES		
Capitalization:		
Comprehensive Shareholders' Equity		
Common Stock, \$1 Par Value; Authorized - 200,000,000 Shares; Issued and Outstanding - 85,118,886 Shares and 84,594,383 Shares, Respectively	\$ 85,119	\$ 84,594
Paid In Capital	771,164	744,274
Earnings Reinvested in the Business	676,361	1,103,200
Accumulated Other Comprehensive Income (Loss)	(5,640)	93,372
Total Comprehensive Shareholders' Equity	1,527,004	2,025,440
Long-Term Debt, Net of Unamortized Discount and Debt Issuance Costs	2,086,252	2,084,009
Total Capitalization	3,613,256	4,109,449
Current and Accrued Liabilities		
Notes Payable to Banks and Commercial Paper	—	—
Current Portion of Long-Term Debt	—	—
Accounts Payable	108,056	180,388
Amounts Payable to Customers	19,537	56,778
Dividends Payable	34,473	33,415
Interest Payable on Long-Term Debt	34,900	36,200
Customer Advances	14,762	16,236
Customer Security Deposits	16,019	16,490
Other Accruals and Current Liabilities	74,430	96,557

Fair Value of Derivative Financial Instruments	1,560	10,076
	303,737	446,140
Deferred Credits		
Deferred Income Taxes	823,795	1,137,962
Taxes Refundable to Customers	93,318	89,448
Unamortized Investment Tax Credit	383	731
Cost of Removal Regulatory Liability	193,424	184,907
Other Regulatory Liabilities	99,789	108,617
Pension and Other Post-Retirement Liabilities	277,113	202,807
Asset Retirement Obligations	112,330	156,805
Other Deferred Credits	119,242	128,073
	1,719,394	2,009,350
Commitments and Contingencies (Note I)	—	—
Total Capitalization and Liabilities	<u>\$ 5,636,387</u>	<u>\$ 6,564,939</u>
See Notes to Consolidated Financial Statements		

NATIONAL FUEL GAS COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended September 30		
	2016	2015	2014
	(Thousands of dollars)		
Operating Activities			
Net Income (Loss) Available for Common Stock	\$ (290,958)	\$ (379,427)	\$ 299,413
Adjustments to Reconcile Net Income (Loss) to Net Cash Provided by Operating Activities:			
Impairment of Oil and Gas Producing Properties	948,307	1,126,257	—
Depreciation, Depletion and Amortization	249,417	336,158	383,781
Deferred Income Taxes	(246,794)	(357,587)	142,415
Excess Tax Benefits Associated with Stock-Based Compensation Awards	(1,868)	(9,064)	(4,641)
Stock-Based Compensation	5,755	3,208	11,763
Other	12,620	9,823	14,063
Change in:			
Hedging Collateral Deposits	9,640	(8,390)	(1,640)
Receivables and Unbilled Revenue	(6,408)	51,638	(22,781)
Gas Stored Underground and Materials and Supplies	(3,532)	3,438	13,285
Unrecovered Purchased Gas Costs	(2,440)	—	12,408
Other Current Assets	3,179	3,150	(3,630)
Accounts Payable	(40,664)	34,687	15,149
Amounts Payable to Customers	(37,241)	23,033	20,917
Customer Advances	(1,474)	(2,769)	(2,954)
Customer Security Deposits	(471)	729	(422)
Other Accruals and Current Liabilities	3,453	(7,173)	6,872
Other Assets	1,941	2,696	18,513
Other Liabilities	(13,483)	23,173	6,879
Net Cash Provided by Operating Activities	588,979	853,580	909,390
Investing Activities			
Capital Expenditures	(581,576)	(1,018,179)	(914,417)
Net Proceeds from Sale of Oil and Gas Producing Properties	137,316	—	—
Other	(9,236)	(6,611)	5,982
Net Cash Used in Investing Activities	(453,496)	(1,024,790)	(908,435)
Financing Activities			
Change in Notes Payable to Banks and Commercial Paper	—	(85,600)	85,600
Excess Tax Benefits Associated with Stock-Based Compensation Awards	1,868	9,064	4,641
Net Proceeds from Issuance of Long-Term Debt	—	444,635	—
Net Proceeds from Issuance of Common Stock	13,849	10,540	7,474
Dividends Paid on Common Stock	(134,824)	(130,719)	(126,642)
Net Cash Provided By (Used in) Financing Activities	(119,107)	247,920	(28,927)
Net Increase (Decrease) in Cash and Temporary Cash Investments	16,376	76,710	(27,972)
Cash and Temporary Cash Investments At Beginning of Year	113,596	36,886	64,858
Cash and Temporary Cash Investments At End of Year	\$ 129,972	\$ 113,596	\$ 36,886
Supplemental Disclosure of Cash Flow Information			
Cash Paid For:			
Interest	\$ 119,563	\$ 90,747	\$ 91,927
Income Taxes	\$ 34,240	\$ 18,657	\$ 40,944
Non-Cash Investing Activities:			
Non-Cash Capital Expenditures	\$ 60,434	\$ 118,959	\$ 136,628
Receivable from Sale of Oil and Gas Producing Properties	\$ 19,543	\$ —	\$ —

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note A — Summary of Significant Accounting Policies

Principles of Consolidation

The Company consolidates all entities in which it has a controlling financial interest. All significant intercompany balances and transactions are eliminated. The Company uses proportionate consolidation when accounting for drilling arrangements related to oil and gas producing properties accounted for under the full cost method of accounting.

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassification

Due to the adoption of the authoritative guidance regarding the presentation of deferred income taxes, certain prior year amounts have been reclassified to conform with current year presentation. The Company reclassified Deferred Income Taxes of \$137.2 million previously shown as Current Assets in the Company's 2015 Form 10-K to Deferred Income Taxes shown as Deferred Credits on the Consolidated Balance Sheet at September 30, 2015.

Regulation

The Company is subject to regulation by certain state and federal authorities. The Company has accounting policies which conform to GAAP, as applied to regulated enterprises, and are in accordance with the accounting requirements and ratemaking practices of the regulatory authorities. Reference is made to Note C — Regulatory Matters for further discussion.

Revenue Recognition

The Company's Exploration and Production segment records revenue based on entitlement, which means that revenue is recorded based on the actual amount of gas or oil that is delivered to a pipeline and the Company's ownership interest in the producing well. If a production imbalance occurs between what was supposed to be delivered to a pipeline and what was actually produced and delivered, the Company accrues the difference as an imbalance.

The Company's Pipeline and Storage segment records revenue for natural gas transportation and storage services. Revenue from reservation charges on firm contracted capacity is recognized through equal monthly charges over the contract period regardless of the amount of gas that is transported or stored. Commodity charges on firm contracted capacity and interruptible contracts are recognized as revenue when physical deliveries of natural gas are made at the agreed upon delivery point or when gas is injected or withdrawn from the storage field. The point of delivery into the pipeline or injection or withdrawal from storage is the point at which ownership and risk of loss transfers to the buyer of such transportation and storage services.

In the Company's Gathering segment, revenue is recorded at the point at which gathered volumes are delivered into interstate pipelines.

The Company's Utility segment records revenue for gas sales and transportation in the period that gas is delivered to customers. This includes the recording of receivables for gas delivered but not yet billed to customers based on the Company's estimate of the amount of gas delivered between the last meter reading date and the end of the accounting period. Such receivables are a component of Unbilled Revenue on the Consolidated Balance Sheets.

The Company's Energy Marketing segment records revenue for gas sales in the period that gas is delivered to customers. This includes the recording of receivables for gas delivered but not yet billed to customers based

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

on the Company's estimate of the amount of gas delivered between the last meter reading date and the end of the accounting period. Such receivables are a component of Unbilled Revenue on the Consolidated Balance Sheets.

Allowance for Uncollectible Accounts

The allowance for uncollectible accounts is the Company's best estimate of the amount of probable credit losses in the existing accounts receivable. The allowance is determined based on historical experience, the age and other specific information about customer accounts. Account balances are charged off against the allowance twelve months after the account is final billed or when it is anticipated that the receivable will not be recovered.

Regulatory Mechanisms

The Company's rate schedules in the Utility segment contain clauses that permit adjustment of revenues to reflect price changes from the cost of purchased gas included in base rates. Differences between amounts currently recoverable and actual adjustment clause revenues, as well as other price changes and pipeline and storage company refunds not yet includable in adjustment clause rates, are deferred and accounted for as either unrecovered purchased gas costs or amounts payable to customers. Such amounts are generally recovered from (or passed back to) customers during the following fiscal year.

Estimated refund liabilities to ratepayers represent management's current estimate of such refunds. Reference is made to Note C — Regulatory Matters for further discussion.

The impact of weather on revenues in the Utility segment's New York rate jurisdiction is tempered by a WNC, which covers the eight-month period from October through May. The WNC is designed to adjust the rates of retail customers to reflect the impact of deviations from normal weather. Weather that is warmer than normal results in a surcharge being added to customers' current bills, while weather that is colder than normal results in a refund being credited to customers' current bills. Since the Utility segment's Pennsylvania rate jurisdiction does not have a WNC, weather variations have a direct impact on the Pennsylvania rate jurisdiction's revenues.

The impact of weather normalized usage per customer account in the Utility segment's New York rate jurisdiction is tempered by a revenue decoupling mechanism. The effect of the revenue decoupling mechanism is to render the Company financially indifferent to throughput decreases resulting from conservation. Weather normalized usage per account that exceeds the average weather normalized usage per customer account results in a refund being credited to customers' bills. Weather normalized usage per account that is below the average weather normalized usage per account results in a surcharge being added to customers' bills. The surcharge or credit is calculated over a twelve-month period ending December 31st, and applied to customer bills annually, beginning March 1st.

In the Pipeline and Storage segment, the allowed rates that Supply Corporation and Empire bill their customers are based on a straight fixed-variable rate design, which allows recovery of all fixed costs, including return on equity and income taxes, through fixed monthly reservation charges. Because of this rate design, changes in throughput due to weather variations do not have a significant impact on the revenues of Supply Corporation or Empire.

Property, Plant and Equipment

In the Company's Exploration and Production segment, oil and gas property acquisition, exploration and development costs are capitalized under the full cost method of accounting. Under this methodology, all costs associated with property acquisition, exploration and development activities are capitalized, including internal costs directly identified with acquisition, exploration and development activities. The internal costs that are capitalized do not include any costs related to production, general corporate overhead, or similar activities. The Company does not recognize any gain or loss on the sale or other disposition of oil and gas properties unless the gain or loss would significantly alter the relationship between capitalized costs and proved reserves of oil and gas attributable to a cost center. For further discussion of capitalized costs, refer to Note M — Supplementary Information for Oil and Gas Producing Activities.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Capitalized costs are subject to the SEC full cost ceiling test. The ceiling test, which is performed each quarter, determines a limit, or ceiling, on the amount of property acquisition, exploration and development costs that can be capitalized. The ceiling under this test represents (a) the present value of estimated future net cash flows, excluding future cash outflows associated with settling asset retirement obligations that have been accrued on the balance sheet, using a discount factor of 10% , which is computed by applying prices of oil and gas (as adjusted for hedging) to estimated future production of proved oil and gas reserves as of the date of the latest balance sheet, less estimated future expenditures, plus (b) the cost of unevaluated properties not being depleted, less (c) income tax effects related to the differences between the book and tax basis of the properties. The natural gas and oil prices used to calculate the full cost ceiling are based on an unweighted arithmetic average of the first day of the month oil and gas prices for each month within the twelve-month period prior to the end of the reporting period. If capitalized costs, net of accumulated depreciation, depletion and amortization and related deferred income taxes, exceed the ceiling at the end of any quarter, a permanent impairment is required to be charged to earnings in that quarter. The book value of the oil and gas properties exceeded the ceiling at September 30, 2016 as well as at June 30, 2016, March 31, 2016 and December 31, 2015. As such, the Company recognized pre-tax impairment charges of \$948.3 million for the year ended September 30, 2016. Deferred income tax benefits of \$398.3 million related to the impairment charges were also recognized for the year ended September 30, 2016. In adjusting estimated future net cash flows for hedging under the ceiling test at September 30, 2016 , 2015 , and 2014 , estimated future net cash flows were increased by \$215.3 million , increased by \$194.5 million and decreased by \$33.6 million , respectively.

On December 1, 2015, Seneca and IOG - CRV Marcellus, LLC (IOG), an affiliate of IOG Capital, LP, and funds managed by affiliates of Fortress Investment Group, LLC, executed a joint development agreement that allows IOG to participate in the development of certain oil and gas interests owned by Seneca in Elk, McKean and Cameron Counties, Pennsylvania. On June 13, 2016, Seneca and IOG executed an extension of the joint development agreement. Under the terms of the extended agreement, Seneca and IOG will jointly participate in a program to develop up to 75 Marcellus wells, with Seneca serving as program operator. The extended joint development agreement gives IOG the option to participate in an additional 7 -well Marcellus pad that is expected to be completed before December 31, 2017, which, if exercised, would increase the maximum number of joint development wells to 82 . Under the original joint development agreement, IOG had committed to develop 42 Marcellus wells. IOG will hold an 80% working interest in all of the joint development wells. In total, IOG is expected to fund approximately \$325 million for its 80% working interest in the 75 joint development wells. As of September 30, 2016, Seneca had received \$137.3 million of cash and had recorded a \$19.6 million receivable in recognition of IOG funding that is due to Seneca for costs previously incurred to develop a portion of the first 75 joint development wells. The cash proceeds and receivable were recorded by Seneca as a \$156.9 million reduction of property, plant and equipment. As the fee-owner of the property's mineral rights, Seneca retains a 7.5% royalty interest and the remaining 20% working interest (26% net revenue interest) in 56 of the joint development wells. In the remaining 19 wells, Seneca retains a 20% working and net revenue interest. Seneca's working interest under the agreement will increase to 85% after IOG achieves a 15% internal rate of return.

The principal assets of the Utility and Pipeline and Storage segments, consisting primarily of gas plant in service, are recorded at the historical cost when originally devoted to service.

Maintenance and repairs of property and replacements of minor items of property are charged directly to maintenance expense. The original cost of the regulated subsidiaries' property, plant and equipment retired, and the cost of removal less salvage, are charged to accumulated depreciation.

Depreciation, Depletion and Amortization

For oil and gas properties, depreciation, depletion and amortization is computed based on quantities produced in relation to proved reserves using the units of production method. The cost of unproved oil and gas properties is excluded from this computation. In the All Other category, for timber properties, depletion, determined on a property by property basis, is charged to operations based on the actual amount of timber cut in relation to the total amount

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

of recoverable timber. For all other property, plant and equipment, depreciation and amortization is computed using the straight-line method in amounts sufficient to recover costs over the estimated service lives of property in service. The following is a summary of depreciable plant by segment:

	As of September 30	
	2016	2015
	(Thousands)	
Exploration and Production	\$ 4,645,226	\$ 4,556,096
Pipeline and Storage	1,956,708	1,710,947
Gathering	454,343	307,274
Utility	1,998,605	1,888,489
Energy Marketing	3,528	3,494
All Other and Corporate	109,455	109,193
	<u>\$ 9,167,865</u>	<u>\$ 8,575,493</u>

Average depreciation, depletion and amortization rates are as follows:

	Year Ended September 30		
	2016	2015	2014
Exploration and Production, per Mcfe(1)	\$ 0.87	\$ 1.52	\$ 1.85
Pipeline and Storage	2.4%	2.4%	2.4%
Gathering	4.0%	4.0%	3.3%
Utility	2.7%	2.6%	2.6%
Energy Marketing	7.9%	6.1%	5.8%
All Other and Corporate	1.8%	1.4%	0.9%

- (1) Amounts include depletion of oil and gas producing properties as well as depreciation of fixed assets. As disclosed in Note M — Supplementary Information for Oil and Gas Producing Activities, depletion of oil and gas producing properties amounted to \$0.85 , \$1.49 and \$1.82 per Mcfe of production in 2016 , 2015 and 2014 , respectively.

Goodwill

The Company has recognized goodwill of \$5.5 million as of September 30, 2016 and 2015 on its Consolidated Balance Sheets related to the Company's acquisition of Empire in 2003. The Company accounts for goodwill in accordance with the current authoritative guidance, which requires the Company to test goodwill for impairment annually. At September 30, 2016 , 2015 and 2014 , the fair value of Empire was greater than its book value. As such, the goodwill was not considered impaired at those dates. Going back to the origination of the goodwill in 2003, the Company has never recorded an impairment of its goodwill balance.

Financial Instruments

Unrealized gains or losses from the Company's investments in an equity mutual fund, a fixed income mutual fund and the stock of an insurance company (securities available for sale) are recorded as a component of accumulated other comprehensive income (loss). Reference is made to Note G — Financial Instruments for further discussion.

The Company uses a variety of derivative financial instruments to manage a portion of the market risk associated with fluctuations in the price of natural gas and crude oil and to manage a portion of the risk of currency fluctuations associated with transportation costs denominated in Canadian currency. These instruments include price swap agreements and futures contracts. The Company accounts for these instruments as either cash flow

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

hedges or fair value hedges. In both cases, the fair value of the instrument is recognized on the Consolidated Balance Sheets as either an asset or a liability labeled Fair Value of Derivative Financial Instruments. Reference is made to Note F — Fair Value Measurements for further discussion concerning the fair value of derivative financial instruments.

For effective cash flow hedges, the offset to the asset or liability that is recorded is a gain or loss recorded in accumulated other comprehensive income (loss) on the Consolidated Balance Sheets. The gain or loss recorded in accumulated other comprehensive income (loss) remains there until the hedged transaction occurs, at which point the gains or losses are reclassified to operating revenues, purchased gas expense or operation and maintenance expense on the Consolidated Statements of Income. Reference is made to Note G - Financial Instruments for further discussion concerning cash flow hedges.

For fair value hedges, the offset to the asset or liability that is recorded is a gain or loss recorded to operating revenues or purchased gas expense on the Consolidated Statements of Income. However, in the case of fair value hedges, the Company also records an asset or liability on the Consolidated Balance Sheets representing the change in fair value of the asset or firm commitment that is being hedged (see Other Current Assets section in this footnote). The offset to this asset or liability is a gain or loss recorded to operating revenues or purchased gas expense on the Consolidated Statements of Income as well. If the fair value hedge is effective, the gain or loss from the derivative financial instrument is offset by the gain or loss that arises from the change in fair value of the asset or firm commitment that is being hedged. Reference is made to Note G - Financial Instruments for further discussion concerning fair value hedges.

Accumulated Other Comprehensive Income (Loss)

The components of Accumulated Other Comprehensive Income (Loss) and changes for the year ended September 30, 2016, net of related tax effect, are as follows (amounts in parentheses indicate debits) (in thousands):

	Gains and Losses on Derivative Financial Instruments	Gains and Losses on Securities Available for Sale	Funded Status of the Pension and Other Post- Retirement Benefit Plans	Total
Year Ended September 30, 2016				
Balance at October 1, 2015	\$ 157,197	\$ 5,969	\$ (69,794)	\$ 93,372
Other Comprehensive Gains and Losses Before Reclassifications	41,845	932	(13,027)	29,750
Amounts Reclassified From Other Comprehensive Loss	(134,260)	(847)	6,345	(128,762)
Balance at September 30, 2016	<u>\$ 64,782</u>	<u>\$ 6,054</u>	<u>\$ (76,476)</u>	<u>\$ (5,640)</u>
Year Ended September 30, 2015				
Balance at October 1, 2014	\$ 43,659	\$ 8,382	\$ (56,020)	\$ (3,979)
Other Comprehensive Gains and Losses Before Reclassifications	220,146	(2,039)	(19,616)	198,491
Amounts Reclassified From Other Comprehensive Income	(106,608)	(374)	5,842	(101,140)
Balance at September 30, 2015	<u>\$ 157,197</u>	<u>\$ 5,969</u>	<u>\$ (69,794)</u>	<u>\$ 93,372</u>

The amounts included in accumulated other comprehensive income (loss) related to the funded status of the Company's pension and other post-retirement benefit plans consist of prior service costs and accumulated losses. The total amount for prior service cost was \$1.3 million and \$1.5 million at September 30, 2016 and 2015,

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

respectively. The total amount for accumulated losses was \$75.2 million and \$68.3 million at September 30, 2016 and 2015, respectively.

Reclassifications Out of Accumulated Other Comprehensive Income (Loss)

The details about the reclassification adjustments out of accumulated other comprehensive income (loss) for the year ended September 30, 2016 are as follows (amounts in parentheses indicate debits to the income statement) (in thousands):

Details About Accumulated Other Comprehensive Income (Loss) Components	Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income (Loss) for the Year Ended September 30,		Affected Line Item in the Statement Where Net Income (Loss) is Presented
	2016	2015	
Gains (Losses) on Derivative Financial Instrument Cash Flow Hedges:			
Commodity Contracts	\$216,823	\$180,069	Operating Revenues
Commodity Contracts	4,520	4,884	Purchased Gas
Foreign Currency Contracts	(424)	—	Operation and Maintenance Expense
Gains (Losses) on Securities Available for Sale	1,374	591	Other Income
Amortization of Prior Year Funded Status of the Pension and Other Post-Retirement Benefit Plans:			
Prior Service Credit	(333)	109	(1)
Net Actuarial Loss	(9,735)	(9,326)	(1)
	212,225	176,327	Total Before Income Tax
	(83,463)	(75,187)	Income Tax Expense
	<u>\$128,762</u>	<u>\$101,140</u>	Net of Tax

(1) These accumulated other comprehensive income (loss) components are included in the computation of net periodic benefit cost. Refer to Note H — Retirement Plan and Other Post-Retirement Benefits for additional details.

Gas Stored Underground

In the Utility segment, gas stored underground in the amount of \$27.6 million is carried at lower of cost or market, on a LIFO method. Based upon the average price of spot market gas purchased in September 2016, including transportation costs, the current cost of replacing this inventory of gas stored underground exceeded the amount stated on a LIFO basis by approximately \$7.0 million at September 30, 2016. All other gas stored underground, which is in the Energy Marketing segment, is carried at an average cost method, subject to lower of cost or market adjustments.

Unamortized Debt Expense

Costs associated with the reacquisition of debt related to rate-regulated subsidiaries are deferred and amortized over the remaining life of the issue or the life of the replacement debt in order to match regulatory treatment. At September 30, 2016, the remaining weighted average amortization period for such costs was approximately 3 years .

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Income Taxes

The Company and its subsidiaries file a consolidated federal income tax return. State tax returns are filed on a combined or separate basis depending on the applicable laws in the jurisdictions where tax returns are filed. The investment tax credit, prior to its repeal in 1986, was deferred and is being amortized over the estimated useful lives of the related property, as required by regulatory authorities having jurisdiction.

The Company follows the asset and liability approach in accounting for income taxes, which requires the recognition of deferred income taxes for the expected future tax consequences of net operating losses, credits and temporary differences between the financial statement carrying amounts and the tax basis of assets and liabilities. A valuation allowance is provided on deferred tax assets if it is determined, within each taxing jurisdiction, that it is more likely than not that the asset will not be realized.

The Company reports a liability or a reduction of deferred tax assets for unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. When applicable, the Company recognizes interest relating to uncertain tax positions in Other Interest Expense and penalties in Other Income.

Consolidated Statement of Cash Flows

For purposes of the Consolidated Statement of Cash Flows, the Company considers all highly liquid debt instruments purchased with a maturity of generally three months or less to be cash equivalents.

Hedging Collateral Deposits

This is an account title for cash held in margin accounts funded by the Company to serve as collateral for hedging positions. In accordance with its accounting policy, the Company does not offset hedging collateral deposits paid or received against related derivative financial instrument liability or asset balances.

Other Current Assets

The components of the Company's Other Current Assets are as follows:

	Year Ended September 30	
	2016	2015
	(Thousands)	
Prepayments	\$ 10,919	\$ 10,743
Prepaid Property and Other Taxes	13,138	13,709
Federal Income Taxes Receivable	11,758	—
State Income Taxes Receivable	3,961	—
Fair Values of Firm Commitments	3,962	15,775
Regulatory Assets	15,616	20,438
	<u>\$ 59,354</u>	<u>\$ 60,665</u>

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Other Accruals and Current Liabilities

The components of the Company's Other Accruals and Current Liabilities are as follows:

	Year Ended September 30	
	2016	2015
	(Thousands)	
Accrued Capital Expenditures	\$ 26,796	\$ 53,652
Regulatory Liabilities	14,725	5,346
Federal Income Taxes Payable	—	5,686
State Income Taxes Payable	—	1,170
Other	32,909	30,703
	<u>\$ 74,430</u>	<u>\$ 96,557</u>

Customer Advances

The Company's Utility and Energy Marketing segments have balanced billing programs whereby customers pay their estimated annual usage in equal installments over a twelve-month period. Monthly payments under the balanced billing programs are typically higher than current month usage during the summer months. During the winter months, monthly payments under the balanced billing programs are typically lower than current month usage. At September 30, 2016 and 2015, customers in the balanced billing programs had advanced excess funds of \$14.8 million and \$16.2 million , respectively.

Customer Security Deposits

The Company, in its Utility, Pipeline and Storage, and Energy Marketing segments, often times requires security deposits from marketers, producers, pipeline companies, and commercial and industrial customers before providing services to such customers. At September 30, 2016 and 2015, the Company had received customer security deposits amounting to \$16.0 million and \$16.5 million , respectively.

Earnings Per Common Share

Basic earnings per common share is computed by dividing income or loss by the weighted average number of common shares outstanding for the period. Diluted earnings per common share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. For purposes of determining earnings per common share, the potentially dilutive securities the Company has outstanding are stock options, SARs, restricted stock units and performance shares. As the Company recognized net losses for the years ended September 30, 2016 and 2015, the aforementioned securities, amounting to 431,408 shares and 709,063 shares, respectively, were not recognized in the diluted earnings per share calculation for 2016 and 2015. For the year ended September 30, 2014, the diluted weighted average shares outstanding shown on the Consolidated Statements of Income reflects the potential dilution as a result of these securities as determined using the Treasury Stock Method. Stock options, SARs, restricted stock units and performance shares that are antidilutive are excluded from the calculation of diluted earnings per common share. There were 1,007 shares excluded as being antidilutive for the year ended September 30, 2014.

Stock-Based Compensation

The Company has various stock option and stock award plans which provide or provided for the issuance of one or more of the following to key employees: incentive stock options, nonqualified stock options, SARs, restricted stock, restricted stock units, performance units or performance shares. The Company follows authoritative guidance which requires the measurement and recognition of compensation cost at fair value for all share-based payments. Stock options and SARs under all plans have exercise prices equal to the average market price of Company common stock on the date of grant, and generally no stock option or SAR is exercisable less than one

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

year or more than ten years after the date of each grant. The Company has chosen the Black-Scholes-Merton closed form model to calculate the compensation expense associated with stock options and SARs.

Restricted stock is subject to restrictions on vesting and transferability. Restricted stock awards entitle the participants to full dividend and voting rights. The market value of restricted stock on the date of the award is recorded as compensation expense over the vesting period. Certificates for shares of restricted stock awarded under the Company's stock option and stock award plans are held by the Company during the periods in which the restrictions on vesting are effective. Restrictions on restricted stock awards generally lapse ratably over a period of not more than ten years after the date of each grant. Restricted stock units also are subject to restrictions on vesting and transferability. Restricted stock units, both performance and non-performance based, represent the right to receive shares of common stock of the Company (or the equivalent value in cash or a combination of cash and shares of common stock of the Company, as determined by the Company) at the end of a specified time period. The performance based and non-performance based restricted stock units do not entitle the participants to dividend and voting rights. The accounting for performance based and non-performance based restricted stock units is the same as the accounting for restricted share awards, except that the fair value at the date of grant of the restricted stock units (represented by the market value of Company common stock on the date of the award) must be reduced by the present value of forgone dividends over the vesting term of the award. The fair value of restricted stock units on the date of award is recorded as compensation expense over the vesting period.

Performance shares are an award constituting units denominated in common stock of the Company, the number of which may be adjusted over a performance cycle based upon the extent to which performance goals have been satisfied. Earned performance shares may be distributed in the form of shares of common stock of the Company, an equivalent value in cash or a combination of cash and shares of common stock of the Company, as determined by the Company. The performance shares do not entitle the participant to receive dividends during the vesting period. For performance shares based on a return on capital goal, the fair value at the date of grant of the performance shares is determined by multiplying the expected number of performance shares to be issued by the market value of Company common stock on the date of grant reduced by the present value of forgone dividends. For performance shares based on a total shareholder return goal, the Company uses the Monte Carlo simulation technique to estimate the fair value price at the date of grant.

Refer to Note E — Capitalization and Short-Term Borrowings under the heading "Stock Option and Stock Award Plans" for additional disclosures related to stock-based compensation awards for all plans.

New Authoritative Accounting and Financial Reporting Guidance

In May 2014, the FASB issued authoritative guidance regarding revenue recognition. The authoritative guidance provides a single, comprehensive revenue recognition model for all contracts with customers to improve comparability. The revenue standard contains principles that an entity will apply to determine the measurement of revenue and timing of when it is recognized. The original effective date of this authoritative guidance was as of the Company's first quarter of fiscal 2018. However, the FASB has delayed the effective date of the new revenue standard by one year, and the guidance will now be effective as of the Company's first quarter of fiscal 2019. Working towards this implementation date, the Company is currently evaluating the guidance and the various issues identified by industry based revenue recognition task forces and intends to begin analyzing its contractual arrangements with customers in the second half of fiscal 2017.

In November 2015, the FASB issued authoritative guidance simplifying the presentation of deferred income taxes. The authoritative guidance requires entities with a classified balance sheet to present all deferred tax assets and liabilities as noncurrent. The Company early adopted this guidance at December 31, 2015 on a retrospective basis.

In January 2016, the FASB issued authoritative guidance regarding the recognition and measurement of financial assets and liabilities. The authoritative guidance primarily affects the accounting for equity investments, financial liabilities under the fair value option and the presentation and disclosure requirements for financial

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

instruments. All equity investments in unconsolidated entities will be measured at fair value through earnings rather than through other comprehensive income. This authoritative guidance will be effective as of the Company's first quarter of fiscal 2019. The Company is currently evaluating the impact that adoption of this guidance will have on its consolidated financial statements.

In February 2016, the FASB issued authoritative guidance requiring organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by all leases, regardless of whether they are considered to be capital leases or operating leases. The FASB's previous authoritative guidance required organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by capital leases while excluding operating leases from balance sheet recognition. The new authoritative guidance will be effective as of the Company's first quarter of fiscal 2020, with early adoption permitted. The Company does not anticipate early adoption and is currently evaluating the provisions of the revised guidance.

In March 2016, the FASB issued authoritative guidance simplifying several aspects of the accounting for stock-based compensation. Among other things, the revised guidance specifies that the difference between the compensation recognized for financial reporting purposes and the deduction allowed for tax purposes (excess tax benefit or deficiency) shall be recognized as income tax expense or benefit in the income statement, as opposed to the current treatment where this difference is recognized as additional paid-in capital in the balance sheet. For statement of cash flows purposes, the revised guidance specifies that the excess tax benefit shall be classified along with other income tax cash flows as an item impacting cash flow from operating activities. The current guidance separates the excess tax benefit from other income tax cash flows and classifies the excess tax benefit as an item impacting cash flow from financing activities. The new authoritative guidance will be effective as of the Company's first quarter of fiscal 2018, with early adoption permitted. The Company is currently evaluating the impact that adoption of this guidance will have on its consolidated financial statements.

Note B — Asset Retirement Obligations

The Company accounts for asset retirement obligations in accordance with the authoritative guidance that requires entities to record the fair value of a liability for an asset retirement obligation in the period in which it is incurred. An asset retirement obligation is defined as a legal obligation associated with the retirement of a tangible long-lived asset in which the timing and/or method of settlement may or may not be conditional on a future event that may or may not be within the control of the Company. When the liability is initially recorded, the entity capitalizes the estimated cost of retiring the asset as part of the carrying amount of the related long-lived asset. Over time, the liability is adjusted to its present value each period and the capitalized cost is depreciated over the useful life of the related asset. The Company estimates the fair value of its asset retirement obligations based on the discounting of expected cash flows using various estimates, assumptions and judgments regarding certain factors such as the existence of a legal obligation for an asset retirement obligation; estimated amounts and timing of settlements; the credit-adjusted risk-free rate to be used; and inflation rates. Asset retirement obligations incurred in the current period were Level 3 fair value measurements as the inputs used to measure the fair value are unobservable.

The Company has recorded an asset retirement obligation representing plugging and abandonment costs associated with the Exploration and Production segment's crude oil and natural gas wells and has capitalized such costs in property, plant and equipment (i.e. the full cost pool).

In addition to the asset retirement obligation recorded in the Exploration and Production segment, the Company has recorded future asset retirement obligations associated with the plugging and abandonment of natural gas storage wells in the Pipeline and Storage segment and the removal of asbestos and asbestos-containing material in various facilities in the Utility and Pipeline and Storage segments. The Company has also recorded asset retirement obligations for certain costs connected with the retirement of the distribution mains and services components of the pipeline system in the Utility segment, the transmission mains and other components in the

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

pipeline system in the Pipeline and Storage segment, and the gathering lines and other components in the Gathering segment. The retirement costs within the distribution, transmission and gathering systems are primarily for the capping and purging of pipe, which are generally abandoned in place when retired, as well as for the clean-up of PCB contamination associated with the removal of certain pipe.

On June 30, 2016, Seneca sold the majority of its Upper Devonian wells in Pennsylvania. While the proceeds from the sale were not significant, it did result in a \$58.4 million reduction of its Asset Retirement Obligation at September 30, 2016, which is reflected in Liabilities Settled in the table below. The following is a reconciliation of the change in the Company's asset retirement obligations:

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Balance at Beginning of Year	\$ 156,805	\$ 117,713	\$ 119,511
Liabilities Incurred	2,719	4,433	5,390
Revisions of Estimates	16,721	33,717	(7,886)
Liabilities Settled	(72,215)	(6,825)	(6,955)
Accretion Expense	8,300	7,767	7,653
Balance at End of Year	<u>\$ 112,330</u>	<u>\$ 156,805</u>	<u>\$ 117,713</u>

Note C — Regulatory Matters

Regulatory Assets and Liabilities

The Company has recorded the following regulatory assets and liabilities:

	At September 30	
	2016	2015
	(Thousands)	
Regulatory Assets(1):		
Pension Costs(2) (Note H)	\$ 203,755	\$ 202,781
Post-Retirement Benefit Costs(2) (Note H)	74,802	34,217
Recoverable Future Taxes (Note D)	177,261	168,214
Environmental Site Remediation Costs(2) (Note I)	23,392	24,606
NYPSC Assessment(3)	5,804	13,916
Asset Retirement Obligations(2) (Note B)	12,490	12,250
Unamortized Debt Expense (Note A)	1,688	2,218
Other(4)	16,123	10,895
Total Regulatory Assets	515,315	469,097
Less: Amounts Included in Other Current Assets	(15,616)	(20,438)
Total Long-Term Regulatory Assets	<u>\$ 499,699</u>	<u>\$ 448,659</u>

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	At September 30	
	2016	2015
	(Thousands)	
Regulatory Liabilities:		
Cost of Removal Regulatory Liability	\$ 193,424	\$ 184,907
Taxes Refundable to Customers (Note D)	93,318	89,448
Post-Retirement Benefit Costs (Note H)	67,204	60,013
Amounts Payable to Customers (See Regulatory Mechanisms in Note A)	19,537	56,778
Off-System Sales and Capacity Release Credits	15,930	21,027
Other(5)	31,380	32,923
Total Regulatory Liabilities	420,793	445,096
Less: Amounts included in Current and Accrued Liabilities	(34,262)	(62,124)
Total Long-Term Regulatory Liabilities	\$ 386,531	\$ 382,972

- (1) The Company recovers the cost of its regulatory assets but generally does not earn a return on them. There are a few exceptions to this rule. For example, the Company does earn a return on Unrecovered Purchased Gas Costs and, in the New York jurisdiction of its Utility segment, earns a return, within certain parameters, on the excess of cumulative funding to the pension plan over the cumulative amount collected in rates.
- (2) Included in Other Regulatory Assets on the Consolidated Balance Sheets.
- (3) Amounts are included in Other Current Assets on the Consolidated Balance Sheets at September 30, 2016 and September 30, 2015 since such amounts are expected to be recovered from ratepayers in the next 12 months.
- (4) \$9,812 and \$6,522 are included in Other Current Assets on the Consolidated Balance Sheets at September 30, 2016 and 2015, respectively, since such amounts are expected to be recovered from ratepayers in the next 12 months. \$6,311 and \$4,373 are included in Other Regulatory Assets on the Consolidated Balance Sheets at September 30, 2016 and 2015, respectively.
- (5) \$14,725 and \$5,346 are included in Other Accruals and Current Liabilities on the Consolidated Balance Sheets at September 30, 2016 and 2015, respectively, since such amounts are expected to be recovered from ratepayers in the next 12 months. \$16,655 and \$27,577 are included in Other Regulatory Liabilities on the Consolidated Balance Sheets at September 30, 2016 and 2015, respectively.

If for any reason the Company ceases to meet the criteria for application of regulatory accounting treatment for all or part of its operations, the regulatory assets and liabilities related to those portions ceasing to meet such criteria would be eliminated from the Consolidated Balance Sheets and included in income of the period in which the discontinuance of regulatory accounting treatment occurs.

Cost of Removal Regulatory Liability

In the Company's Utility and Pipeline and Storage segments, costs of removing assets (i.e. asset retirement costs) are collected from customers through depreciation expense. These amounts are not a legal retirement obligation as discussed in Note B — Asset Retirement Obligations. Rather, they are classified as a regulatory liability in recognition of the fact that the Company has collected dollars from the customer that will be used in the future to fund asset retirement costs.

NYPSC Assessment

On April 7, 2009, the Governor of the State of New York signed into law an amendment to the Public Service Law increasing the allowed utility assessment from the then current rate of one-third of one percent to one percent

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

of a utility's in-state gross operating revenue, together with a temporary surcharge (expiring March 31, 2014) equal, as applied, to an additional one percent of the utility's in-state gross operating revenue. Pursuant to a New York State budget agreement in 2014, the temporary increase in the assessment will be phased out over a three year period ending July 1, 2017. The NYPSC, in a generic proceeding initiated for the purpose of implementing the amended law, has authorized the recovery, through rates, of the full cost of the increased assessment. The assessment is currently being applied to customer bills in the Utility segment's New York jurisdiction.

NYPSC Rate Proceeding

On April 28, 2016, Distribution Corporation commenced a rate case by filing proposed tariff amendments and supporting testimony requesting approval to increase its annual revenues by approximately \$41.7 million. Distribution Corporation explained in the filing that its request for rate relief was necessitated by a revenue requirement driven primarily by rate base growth, higher operating expense and higher depreciation expense that are not reflected in current rates, among other things. The rate filing includes a proposal for system infrastructure modernization that includes the acceleration of Distribution Corporation's replacement of certain gas mains, which are of a type generically classified by the NYPSC as "leak prone pipe". The NYPSC may accept, reject or modify Distribution Corporation's filing. On October 19, 2016, the Company filed a Notice of Impending Confidential Settlement Negotiations notifying the NYPSC that Distribution Corporation, Department of Public Service Staff and other interested parties were entering into settlement discussions, which may result in settlement of some or all of the issues raised in the proceeding. The outcome of the proceeding cannot be ascertained at this time.

FERC Rate Proceedings

Supply Corporation's current rate settlement requires a rate case filing no later than December 31, 2019 and prohibits any party from seeking to initiate a rate case proceeding before September 30, 2017.

By order dated January 21, 2016, the FERC began a NGA Section 5 rate review of Empire's rates. As required by that order, Empire filed a Cost and Revenue Study on April 5, 2016. On May 25, 2016, Empire reached a settlement in principle on this matter that would, among other things, reduce certain of Empire's maximum transportation rates over a 14-month period, which, based on current contracts, is estimated to reduce Empire's revenues on a yearly basis by between \$3 million to \$4 million. The settlement also reduces Empire's depreciation rate from 2.5% to 2%. In addition, the settlement provides an annual revenue sharing mechanism, pursuant to which non-expansion transportation revenues exceeding \$73.5 million are shared on a tiered basis. Under the settlement, Empire will be required to make a general rate filing no later than July 1, 2021. On July 22, 2016, Empire filed the settlement at the FERC and on October 20, 2016, the FERC issued an order conditionally approving the settlement. The settlement is not expected to have a material impact on the Company's financial condition.

Off-System Sales and Capacity Release Credits

The Company, in its Utility segment, has entered into off-system sales and capacity release transactions. Most of the margins on such transactions are returned to the customer with only a small percentage being retained by the Company. The amount owed to the customer has been deferred as a regulatory liability.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Note D — Income Taxes

The components of federal and state income taxes included in the Consolidated Statements of Income are as follows:

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Current Income Taxes —			
Federal	\$ (6,658)	\$ 25,064	\$ 34,579
State	20,903	13,387	12,620
Deferred Income Taxes —			
Federal	(164,818)	(244,336)	116,143
State	(81,976)	(113,251)	26,272
	(232,549)	(319,136)	189,614
Deferred Investment Tax Credit	(348)	(414)	(434)
Total Income Taxes	<u>\$ (232,897)</u>	<u>\$ (319,550)</u>	<u>\$ 189,180</u>
Presented as Follows:			
Other Income	\$ (348)	\$ (414)	\$ (434)
Income Tax Expense (Benefit)	(232,549)	(319,136)	189,614
Total Income Taxes	<u>\$ (232,897)</u>	<u>\$ (319,550)</u>	<u>\$ 189,180</u>

Total income taxes as reported differ from the amounts that were computed by applying the federal income tax rate to income (loss) before income taxes. The following is a reconciliation of this difference:

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
U.S. Income (Loss) Before Income Taxes	<u>\$ (523,855)</u>	<u>\$ (698,977)</u>	<u>\$ 488,593</u>
Income Tax Expense (Benefit), Computed at U.S. Federal Statutory Rate of 35%	\$ (183,349)	\$ (244,642)	\$ 171,008
State Income Taxes (Benefit)	(39,697)	(64,912)	25,280
Miscellaneous	(9,851)	(9,996)	(7,108)
Total Income Taxes	<u>\$ (232,897)</u>	<u>\$ (319,550)</u>	<u>\$ 189,180</u>

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Significant components of the Company's deferred tax liabilities and assets were as follows:

	At September 30	
	2016	2015
	(Thousands)	
Deferred Tax Liabilities:		
Property, Plant and Equipment	\$ 1,049,100	\$ 1,291,718
Pension and Other Post-Retirement Benefit Costs	151,903	141,032
Unrealized Hedging Gains	50,179	118,522
Other	55,457	51,230
Total Deferred Tax Liabilities	1,306,639	1,602,502
Deferred Tax Assets:		
Pension and Other Post-Retirement Benefit Costs	(195,829)	(168,451)
Tax Loss and Credit Carryforwards	(194,875)	(185,681)
Other	(92,140)	(110,408)
Total Deferred Tax Assets	(482,844)	(464,540)
Total Net Deferred Income Taxes	\$ 823,795	\$ 1,137,962

As a result of certain realization requirements of the authoritative guidance on stock-based compensation, the table of deferred tax liabilities and assets shown above does not include certain deferred tax assets that arose directly from excess tax deductions related to stock-based compensation. Tax benefits of \$1.9 million, \$9.1 million and \$4.6 million relating to the excess stock-based compensation deductions were recorded in Paid in Capital during the years ended September 30, 2016, September 30, 2015 and September 30, 2014, respectively. Cumulative tax benefits of \$32.6 million and \$32.8 million remained as of September 30, 2016 and September 30, 2015, respectively, and will be recorded in Paid in Capital in future years when such tax benefits are realized or recorded to retained earnings when the Company adopts the authoritative guidance issued by the FASB in March 2016 that addresses several aspects of the accounting for stock-based compensation, whichever is earlier.

Regulatory liabilities representing the reduction of previously recorded deferred income taxes associated with rate-regulated activities that are expected to be refundable to customers amounted to \$93.3 million and \$89.4 million at September 30, 2016 and 2015, respectively. Also, regulatory assets representing future amounts collectible from customers, corresponding to additional deferred income taxes not previously recorded because of prior ratemaking practices, amounted to \$177.3 million and \$168.2 million at September 30, 2016 and 2015, respectively. Included in the above are regulatory liabilities and assets relating to the tax accounting method change noted below. The amounts are as follows: regulatory liabilities of \$52.6 million as of September 30, 2016 and 2015 and regulatory assets of \$94.2 million and \$88.7 million as of September 30, 2016 and 2015, respectively.

The following is a reconciliation of the change in unrecognized tax benefits:

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
Balance at Beginning of Year	\$ 5,085	\$ 3,147	\$ 2,001
Additions for Tax Positions of Prior Years	396	2,504	2,447
Reductions for Tax Positions of Prior Years	(1,314)	(566)	(1,301)
Reductions Related to Settlements with Taxing Authorities	(3,771)	—	—
Balance at End of Year	\$ 396	\$ 5,085	\$ 3,147

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

As a result of certain examinations in progress (discussed below), the Company anticipates the balance of unrecognized tax benefits could be reduced during the next 12 months. As of September 30, 2016, the entire balance of unrecognized tax benefits would favorably impact the effective tax rate, if recognized.

The IRS is currently conducting examinations of the Company for fiscal 2016 and fiscal 2015 in accordance with the Compliance Assurance Process ("CAP"). The CAP audit employs a real time review of the Company's books and tax records by the IRS that is intended to permit issue resolution prior to the filing of the tax return. The federal statute of limitations remains open for fiscal 2009 and later years. During fiscal 2009, consent was received from the IRS National Office approving the Company's application to change its tax method of accounting for certain capitalized costs relating to its utility property. While local IRS examiners issued no-change reports for fiscal 2009 through 2014, the IRS has reserved the right to re-examine these years, pending the anticipated issuance of IRS guidance addressing the issue for natural gas utilities.

The Company is also subject to various routine state income tax examinations. The Company's principal subsidiaries operate mainly in four states which have statutes of limitations that generally expire between three to four years from the date of filing of the income tax return.

As of September 30, 2016, the Company has a federal net operating loss (NOL) carryover of \$379 million, which expires in varying amounts between 2026 and 2032. Approximately \$4.5 million of the NOL carryforward is subject to certain annual limitations, and \$85 million is attributable to excess tax deductions related to stock-based compensation as discussed above. In addition, the Company has research and development tax credit carryforwards of \$5.1 million, which begin to expire in 2031 and a minimum tax credit carryforward of \$49 million, which has no expiration date. The Company has state NOL carryovers in Pennsylvania, California and New York of \$332 million, \$184 million and \$80 million, respectively, which generally begin to expire in varying amounts between 2029 and 2035.

During fiscal 2014, legislation was enacted reducing the corporate tax rate in New York from 7.1% to 6.5%, effective for tax years beginning after January 1, 2016. As a result, a deferred tax benefit of approximately \$2.8 million was recorded in the fiscal 2014 financial statements.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Note E — Capitalization and Short-Term Borrowings

Summary of Changes in Common Stock Equity

	Common Stock			Earnings Reinvested in the Business	Accumulated Other Comprehensive Income (Loss)
	Shares	Amount	Paid In Capital		
	(Thousands, except per share amounts)				
Balance at September 30, 2013	83,662	\$ 83,662	\$ 687,684	\$ 1,442,617	\$ (19,234)
Net Income Available for Common Stock				299,413	
Dividends Declared on Common Stock (\$1.52 Per Share)				(127,669)	
Other Comprehensive Income, Net of Tax					15,255
Share-Based Payment Expense(2)			10,654		
Common Stock Issued Under Stock and Benefit Plans(1)	495	495	17,806		
Balance at September 30, 2014	84,157	84,157	716,144	1,614,361	(3,979)
Net Income (Loss) Available for Common Stock				(379,427)	
Dividends Declared on Common Stock (\$1.56 Per Share)				(131,734)	
Other Comprehensive Income, Net of Tax					97,351
Share-Based Payment Expense(2)			2,207		
Common Stock Issued Under Stock and Benefit Plans(1)	437	437	25,923		
Balance at September 30, 2015	84,594	84,594	744,274	1,103,200	93,372
Net Income (Loss) Available for Common Stock				(290,958)	
Dividends Declared on Common Stock (\$1.60 Per Share)				(135,881)	
Other Comprehensive Loss, Net of Tax					(99,012)
Share-Based Payment Expense(2)			4,843		
Common Stock Issued Under Stock and Benefit Plans(1)	525	525	22,047		
Balance at September 30, 2016	85,119	\$ 85,119	\$ 771,164	\$ 676,361 (3)	\$ (5,640)

- (1) Paid in Capital includes tax benefits of \$1.9 million, \$9.1 million and \$4.6 million for September 30, 2016, 2015 and 2014, respectively, related to stock-based compensation.
- (2) Paid in Capital includes compensation costs associated with stock option, SARs, performance share and/or restricted stock awards. The expense is included within Net Income Available For Common Stock, net of tax benefits.
- (3) The availability of consolidated earnings reinvested in the business for dividends payable in cash is limited under terms of the indentures covering long-term debt. At September 30, 2016, \$532.2 million of accumulated earnings was free of such limitations.

Common Stock

The Company has various plans which allow shareholders, employees and others to purchase shares of the Company common stock. The National Fuel Gas Company Direct Stock Purchase and Dividend Reinvestment

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Plan allows shareholders to reinvest cash dividends and make cash investments in the Company's common stock and provides investors the opportunity to acquire shares of the Company common stock without the payment of any brokerage commissions in connection with such acquisitions. The 401(k) Plans allow employees the opportunity to invest in the Company common stock, in addition to a variety of other investment alternatives. Generally, at the discretion of the Company, shares purchased under these plans are either original issue shares purchased directly from the Company or shares purchased on the open market by an independent agent. During 2016, the Company issued 147,056 original issue shares of common stock for the Direct Stock Purchase and Dividend Reinvestment Plan and 118,864 original issue shares of common stock for the Company's 401(k) plans.

During 2016, the Company issued 293,841 original issue shares of common stock as a result of stock option and SARs exercises and 70,233 original issue shares of common stock for restricted stock units that vested. Holders of stock options, SARs, restricted share awards or restricted stock units will often tender shares of common stock to the Company for payment of option exercise prices and/or applicable withholding taxes. During 2016, 88,675 shares of common stock were tendered to the Company for such purposes. The Company considers all shares tendered as cancelled shares restored to the status of authorized but unissued shares, in accordance with New Jersey law. There were also 35,000 restricted stock award shares forfeited during 2016.

The Company also has a director stock program under which it issues shares of Company common stock to the non-employee directors of the Company who receive compensation under the Company's 2009 Non-Employee Director Equity Compensation Plan, as partial consideration for the directors' services during the fiscal year. Under this program, the Company issued 18,184 original issue shares of common stock during 2016.

Shareholder Rights Plan

In 1996, the Company's Board of Directors adopted a shareholder rights plan (Plan). The Plan has been amended several times since it was adopted and is now embodied in an Amended and Restated Rights Agreement effective December 4, 2008, a copy of which was included as an exhibit to the Form 8-K filed by the Company on December 4, 2008.

Pursuant to the Plan, the holders of the Company's common stock have one right (Right) for each of their shares. Each Right is initially evidenced by the Company's common stock certificates representing the outstanding shares of common stock.

The Rights have anti-takeover effects because they will cause substantial dilution of the Company's common stock if a person (an Acquiring Person) attempts to acquire the Company on terms not approved by the Board of Directors.

The Rights become exercisable upon the occurrence of a Distribution Date as described below, but after a Distribution Date, Rights that are owned by an Acquiring Person will be null and void. At any time following a Distribution Date, each holder of a Right may exercise its right to receive, upon payment of an amount calculated under the Rights Agreement, common stock of the Company (or, under certain circumstances, other securities or assets of the Company) having a value equal to two times the amount paid to exercise the Right. However, the Rights are subject to redemption or exchange by the Company prior to their exercise as described below.

A Distribution Date would occur upon the earlier of (i) ten days after the public announcement that a person or group has acquired, or obtained the right to acquire, beneficial ownership of the Company's common stock or other voting stock (including Synthetic Long Positions as defined in the Plan) having 10% or more of the total voting power of the Company's common stock and other voting stock or (ii) ten days after the commencement or announcement by a person or group of an intention to make a tender or exchange offer that would result in that person acquiring, or obtaining the right to acquire, beneficial ownership of the Company's common stock or other voting stock having 10% or more of the total voting power of the Company's common stock and other voting stock.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

In certain situations after a person or group has acquired beneficial ownership of 10% or more of the total voting power of the Company's stock as described above, each holder of a Right will have the right to receive, upon exercise of the Right, common stock of the acquiring company having a value equal to two times the amount paid to exercise the Right. These situations would arise if the Company is acquired in a merger or other business combination or if 50% or more of the Company's assets or earning power is sold or transferred.

At any time prior to the end of the business day on the tenth day following the Distribution Date, the Company may redeem the Rights in whole, but not in part, at a price of \$0.005 per Right, payable in cash or stock. A decision to redeem the Rights requires the vote of 75% of the Company's full Board of Directors. Also, at any time following the Distribution Date, 75% of the Company's full Board of Directors may vote to exchange the Rights, in whole or in part, at an exchange rate of one share of common stock, or other property deemed to have the same value, per Right, subject to certain adjustments.

Upon exercise of the Rights, the Company may need additional regulatory approvals to satisfy the requirements of the Rights Agreement. The Rights will expire on July 31, 2018, unless earlier than that date, they are exchanged or redeemed or the Plan is amended to extend the expiration date.

Stock Option and Stock Award Plans

The Company has various stock option and stock award plans which provide or provided for the issuance of one or more of the following to key employees: incentive stock options, nonqualified stock options, SARs, restricted stock, restricted stock units, performance units or performance shares.

Stock-based compensation expense for the years ended September 30, 2016, 2015 and 2014 was approximately \$4.8 million, \$2.1 million and \$10.5 million, respectively. Stock-based compensation expense is included in operation and maintenance expense on the Consolidated Statements of Income. The total income tax benefit related to stock-based compensation expense during the years ended September 30, 2016, 2015 and 2014 was approximately \$1.9 million, \$0.9 million and \$4.3 million, respectively. A portion of stock-based compensation expense is subject to capitalization under IRS uniform capitalization rules. Stock-based compensation of \$0.1 million, \$0.1 million and \$0.1 million was capitalized under these rules during the years ended September 30, 2016, 2015 and 2014, respectively.

The Company realized excess tax benefits related to stock-based compensation of \$1.6 million, \$7.7 million, and \$3.1 million for the fiscal years ended September 30, 2016, 2015 and 2014, respectively. These amounts are recorded in Paid in Capital when they meet the realization requirements of the authoritative guidance on stock-based compensation.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Stock Options

Transactions involving option shares for all plans are summarized as follows:

	Number of Shares Subject to Option	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In thousands)
Outstanding at September 30, 2015	306,500	\$ 37.73		
Granted in 2016	—	\$ —		
Exercised in 2016	(287,500)	\$ 37.62		
Forfeited in 2016	—	\$ —		
Outstanding at September 30, 2016	19,000	\$ 39.48	0.19	\$ 277
Option shares exercisable at September 30, 2016	19,000	\$ 39.48	0.19	\$ 277
Option shares available for future grant at September 30, 2016(1)	2,714,005			

(1) Includes shares available for SARs, restricted stock and performance share grants.

The total intrinsic value of stock options exercised during the years ended September 30, 2016, 2015 and 2014 totaled approximately \$4.1 million , \$5.1 million , and \$13.7 million , respectively. For 2016, 2015 and 2014, the amount of cash received by the Company from the exercise of such stock options was approximately \$8.0 million , \$5.6 million , and \$7.4 million , respectively. The Company last granted stock options in fiscal 2007 and all outstanding stock options have been fully vested since fiscal 2010.

SARs

Transactions involving SARs for all plans are summarized as follows:

	Number of Shares Subject To Option	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In thousands)
Outstanding at September 30, 2015	1,732,784	\$ 48.70		
Granted in 2016	—	\$ —		
Exercised in 2016	(96,796)	\$ 52.02		
Forfeited in 2016	—	\$ —		
Expired in 2016	(45,000)	\$ 59.48		
Outstanding at September 30, 2016	1,590,988	\$ 48.19	3.94	\$ 9,356
SARs exercisable at September 30, 2016	1,585,988	\$ 48.16	3.93	\$ 9,369

The Company did not grant any SARs during the years ended September 30, 2015 and 2014. The Company's SARs include both performance based and non-performance based SARs, but the performance conditions associated with the performance based SARs at the time of grant have all been subsequently met. The SARs are considered equity awards under the current authoritative guidance for stock-based compensation. The accounting for SARs is the same as the accounting for stock options.

The total intrinsic value of SARs exercised during the years ended September 30, 2016, 2015 and 2014 totaled approximately \$0.4 million , \$2.0 million , and \$8.4 million , respectively. For the years ended September 30, 2016, 2015 and 2014, 113,082 SARs, 157,386 SARs and 323,188 SARs, respectively, became fully vested. The total fair value of the SARs that became vested during each of the years ended September 30, 2016, 2015 and 2014

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

was approximately \$1.2 million , \$1.7 million and \$3.8 million , respectively. As of September 30, 2016, unrecognized compensation expense related to SARs totaled less than \$0.1 million , which will be recognized over a weighted average period of 7 months .

Restricted Share Awards

Transactions involving restricted share awards for all plans are summarized as follows:

	Number of Restricted Share Awards	Weighted Average Fair Value per Award
Outstanding at September 30, 2015	60,000	\$ 47.53
Granted in 2016	—	\$ —
Vested in 2016	(5,000)	\$ 48.41
Forfeited in 2016	(35,000)	\$ 47.46
Outstanding at September 30, 2016	20,000	\$ 47.46

The Company did not grant any restricted share awards (non-vested stock as defined by the current accounting literature) during the years ended September 30, 2015 and 2014. As of September 30, 2016, unrecognized compensation expense related to restricted share awards totaled approximately \$0.3 million , which will be recognized over a weighted average period of 2.6 years .

Vesting restrictions for the 20,000 outstanding shares of non-vested restricted stock at September 30, 2016 will lapse in 2021.

Restricted Stock Units

Transactions involving non-performance based restricted stock units for all plans are summarized as follows:

	Number of Restricted Stock Units	Weighted Average Fair Value per Award
Outstanding at September 30, 2015	236,948	\$ 59.04
Granted in 2016	101,943	\$ 35.89
Vested in 2016	(70,233)	\$ 58.57
Forfeited in 2016	(29,507)	\$ 56.18
Outstanding at September 30, 2016	239,151	\$ 49.67

The Company also granted 88,899 and 82,151 non-performance based restricted stock units during the years ended September 30, 2015 and 2014, respectively. The weighted average fair value of such non-performance based restricted stock units granted in 2015 and 2014 was \$64.04 per share and \$65.24 per share, respectively. As of September 30, 2016, unrecognized compensation expense related to non-performance based restricted stock units totaled approximately \$4.5 million , which will be recognized over a weighted average period of 1.6 years .

Vesting restrictions for the non-performance based restricted stock units outstanding at September 30, 2016 will lapse as follows: 2017 — 64,036 units; 2018 — 44,817 units; 2019 — 53,232 units; 2020 - 43,757 units; and 2021 - 33,309 units.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Transactions involving performance based restricted stock units for all plans are summarized as follows:

	Number of Performance Based Restricted Stock Units	Weighted Average Fair Value per Award
Outstanding at September 30, 2015	233,487	\$ 49.61
Granted in 2016	—	\$ —
Vested in 2016	—	\$ —
Forfeited in 2016	—	\$ —
Canceled in 2016	(233,487)	\$ 49.61
Outstanding at September 30, 2016	—	\$ —

The Company did not grant any performance based restricted stock units during the years ended September 30, 2015 and 2014. The performance based restricted stock units outstanding at September 30, 2015 had to meet a performance condition over the performance cycle of October 1, 2012 to September 30, 2015. The performance condition over the performance cycle, generally stated, was the Company's total return on capital as compared to the same metric for companies in the Natural Gas Distribution and Integrated Natural Gas Companies group as calculated and reported in the Monthly Utility Reports of AUS, Inc., a leading industry consultant. The number of performance based restricted stock units that were to vest depended upon the Company's performance relative to the report group and not upon the absolute level of return achieved by the Company. Based on the significant loss that the Company experienced during 2015, management determined as of September 30, 2015 that the performance conditions associated with the performance based restricted stock units outstanding at September 30, 2015 would not be met. Accordingly, the cumulative stock-based compensation expense of approximately \$8.0 million associated with such restricted stock units was reversed during 2015, and during the year ended September 30, 2016, the restricted stock units were canceled.

Performance Shares

Transactions involving performance shares for all plans are summarized as follows:

	Number of Performance Shares	Weighted Average Fair Value per Award
Outstanding at September 30, 2015	204,742	\$ 66.17
Granted in 2016	309,996	\$ 30.71
Vested in 2016	—	\$ —
Forfeited in 2016	(76,504)	\$ 43.89
Outstanding at September 30, 2016	438,234	\$ 44.98

The Company granted 107,044 and 116,090 performance shares during the years ended September 30, 2015 and 2014, respectively. The weighted average grant date fair value of such performance shares granted in 2015 and 2014 was \$65.26 per share and \$67.16 per share, respectively. As of September 30, 2016, unrecognized compensation expense related to performance shares totaled approximately \$7.0 million, which will be recognized over a weighted average period of 1.4 years. Vesting restrictions for the outstanding performance shares at September 30, 2016 will lapse as follows: 2017 - 86,968 shares; 2018 - 89,192 shares; and 2019 - 262,074 shares.

Half of the performance shares granted during the year ended September 30, 2016 must meet a performance goal related to relative return on capital over the performance cycle of October 1, 2015 to September 30, 2018. In addition, half of the performance shares granted during the year ended September 30, 2015 must meet a performance goal related to relative return on capital over the performance cycle of October 1, 2014 to September 30, 2017, and half of the performance shares granted during the year ended September 30, 2014 must meet a performance

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

goal related to relative return on capital over the performance cycle of October 1, 2013 to September 30, 2016. The performance goals over their respective performance cycles for these performance shares granted during 2016, 2015 and 2014 is the Company's total return on capital relative to the total return on capital of other companies in a group selected by the Compensation Committee ("Report Group"). Total return on capital for a given company means the average of the Report Group companies' returns on capital for each twelve month period corresponding to each of the Company's fiscal years during the performance cycle, based on data reported for the Report Group companies in the Bloomberg database. The number of these performance shares that will vest and be paid will depend upon the Company's performance relative to the Report Group and not upon the absolute level of return achieved by the Company. The fair value of these performance shares is calculated by multiplying the expected number of shares that will be issued by the average market price of Company common stock on the date of grant reduced by the present value of forgone dividends over the vesting term of the award. The fair value is recorded as compensation expense over the vesting term of the award.

The other half of the performance shares granted during the year ended September 30, 2016 must meet a performance goal related to relative total shareholder return over the performance cycle of October 1, 2015 to September 30, 2018. In addition, the other half of the performance shares granted during the year ended September 30, 2015 must meet a performance goal related to relative total shareholder return over the performance cycle of October 1, 2014 to September 30, 2017, and the other half of the performance shares granted during the year ended September 30, 2014 must meet a performance goal related to relative total shareholder return over the performance cycle of October 1, 2013 to September 30, 2016. The performance goals over their respective performance cycles for these total shareholder return performance shares ("TSR performance shares") granted during 2016, 2015 and 2014 is the Company's three-year total shareholder return relative to the three-year total shareholder return of the other companies in the Report Group. Three-year shareholder return for a given company will be based on the data reported for that company (with the starting and ending stock prices over the performance cycle calculated as the average closing stock price for the prior calendar month and with dividends reinvested in that company's securities at each ex-dividend date) in the Bloomberg database. The number of these TSR performance shares that will vest and be paid will depend upon the Company's performance relative to the Report Group and not upon the absolute level of return achieved by the Company. The fair value price at the date of grant for the TSR performance shares is determined using a Monte Carlo simulation technique, which includes a reduction in value for the present value of forgone dividends over the vesting term of the award. This price is multiplied by the number of TSR performance shares awarded, the result of which is recorded as compensation expense over the vesting term of the award. In calculating fair value of the award, the risk-free interest rate is based on the yield of a Treasury Note with a term commensurate with the remaining term of the TSR performance shares. The remaining term is based on the remainder of the performance cycle as of the date of grant. The expected volatility is based on historical daily stock price returns. For the TSR performance shares, it was assumed that there would be no forfeitures, based on the vesting term and the number of grantees. The following assumptions were used in estimating the fair value of the TSR performance shares at the date of grant:

	Year Ended September 30		
	2016	2015	2014
Risk-Free Interest Rate	1.26%	1.01%	0.62%
Remaining Term at Date of Grant (Years)	2.79	2.78	2.78
Expected Volatility	20.5%	20.1%	28.3%
Expected Dividend Yield (Quarterly)	N/A	N/A	N/A

Redeemable Preferred Stock

As of September 30, 2016, there were 10,000,000 shares of \$1 par value Preferred Stock authorized but unissued.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Long-Term Debt

The outstanding long-term debt is as follows:

	At September 30	
	2016	2015
	(Thousands)	
Medium-Term Notes(1):		
7.4% due March 2023 to June 2025	\$ 99,000	\$ 99,000
Notes(1)(3):		
3.75% to 8.75% due April 2018 to July 2025	2,000,000	2,000,000
Total Long-Term Debt	2,099,000	2,099,000
Less Unamortized Discount and Debt Issuance Costs	12,748	14,991
Less Current Portion(2)	—	—
	<u>\$ 2,086,252</u>	<u>\$ 2,084,009</u>

(1) The Medium-Term Notes and Notes are unsecured.

(2) None of the Company's long-term debt at September 30, 2016 and 2015 will mature within the following twelve-month period.

(3) The holders of these notes may require the Company to repurchase their notes at a price equal to 101% of the principal amount in the event of both a change in control and a ratings downgrade to a rating below investment grade.

On June 25, 2015, the Company issued \$450.0 million of 5.20% notes due July 15, 2025. After deducting underwriting discounts, commissions and other debt issuance costs, the net proceeds to the Company amounted to \$444.6 million. The proceeds of this debt issuance were used for general corporate purposes, including the reduction of short-term debt.

As of September 30, 2016, the aggregate principal amounts of long-term debt maturing during the next five years and thereafter are as follows: zero in 2017, \$300.0 million in 2018, \$250.0 million in 2019, zero in 2020 and 2021 and \$1,549.0 million thereafter.

Short-Term Borrowings

The Company historically has obtained short-term funds either through bank loans or the issuance of commercial paper. On September 9, 2016, the Company entered into a Third Amended and Restated Credit Agreement (Credit Agreement) with a syndicate of 14 banks. This Credit Agreement provides a \$750.0 million multi-year unsecured committed revolving credit facility through December 5, 2019. The Credit Agreement also provides a \$500.0 million 364-day unsecured committed revolving credit facility with 11 of the 14 banks through September 8, 2017. The Company also has a number of individual uncommitted or discretionary lines of credit with certain financial institutions for general corporate purposes. Borrowings under the uncommitted lines of credit are made at competitive market rates. The uncommitted credit lines are revocable at the option of the financial institutions and are reviewed on an annual basis. The Company anticipates that its uncommitted lines of credit generally will be renewed or substantially replaced by similar lines. The total amount available to be issued under the Company's commercial paper program is \$500.0 million. At September 30, 2016, the commercial paper program was backed by the Credit Agreement.

The Company did not have any outstanding commercial paper or short term notes payable to banks at September 30, 2016 and 2015.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Debt Restrictions

The Credit Agreement provides that the Company's debt to capitalization ratio will not exceed .675 at the last day of any fiscal quarter through September 30, 2017, or .65 at the last day of any fiscal quarter from October 1, 2017 through December 5, 2019. At September 30, 2016, the Company's debt to capitalization ratio (as calculated under the facility) was .58. The constraints specified in the Credit Agreement would have permitted an additional \$1.08 billion in short-term and/or long-term debt to be outstanding (further limited by the indenture covenants discussed below) before the Company's debt to capitalization ratio exceeded .675.

A downgrade in the Company's credit ratings could increase borrowing costs, negatively impact the availability of capital from banks, commercial paper purchasers and other sources, and require the Company's subsidiaries to post letters of credit, cash or other assets as collateral with certain counterparties. If the Company is not able to maintain investment-grade credit ratings, it may not be able to access commercial paper markets. However, the Company expects that it could borrow under its credit facilities or rely upon other liquidity sources, including cash provided by operations.

The Credit Agreement contains a cross-default provision whereby the failure by the Company or its significant subsidiaries to make payments under other borrowing arrangements, or the occurrence of certain events affecting those other borrowing arrangements, could trigger an obligation to repay any amounts outstanding under the Credit Agreement. In particular, a repayment obligation could be triggered if (i) the Company or any of its significant subsidiaries fails to make a payment when due of any principal or interest on any other indebtedness aggregating \$40.0 million or more, or (ii) an event occurs that causes, or would permit the holders of any other indebtedness aggregating \$40.0 million or more to cause, such indebtedness to become due prior to its stated maturity. As of September 30, 2016, the Company had no debt outstanding under the Credit Agreement.

Under the Company's existing indenture covenants, at September 30, 2016, the Company expects to be precluded from issuing additional long-term unsecured indebtedness until the second half of fiscal 2017 as a result of impairments of its oil and gas properties recognized during the years ended September 30, 2016 and 2015. The 1974 indenture would not preclude the Company from issuing new indebtedness to replace maturing debt, and the Company expects that it could borrow under its credit facilities. The Company's present liquidity position is believed to be adequate to satisfy known demands.

The Company's 1974 indenture pursuant to which \$98.7 million (or 4.7%) of the Company's long-term debt (as of September 30, 2016) was issued, contains a cross-default provision whereby the failure by the Company to perform certain obligations under other borrowing arrangements could trigger an obligation to repay the debt outstanding under the indenture. In particular, a repayment obligation could be triggered if the Company fails (i) to pay any scheduled principal or interest on any debt under any other indenture or agreement, or (ii) to perform any other term in any other such indenture or agreement, and the effect of the failure causes, or would permit the holders of the debt to cause, the debt under such indenture or agreement to become due prior to its stated maturity, unless cured or waived.

Note F — Fair Value Measurements

The FASB authoritative guidance regarding fair value measurements establishes a fair-value hierarchy and prioritizes the inputs used in valuation techniques that measure fair value. Those inputs are prioritized into three levels. Level 1 inputs are unadjusted quoted prices in active markets for assets or liabilities that the Company can access at the measurement date. Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly at the measurement date. Level 3 inputs are unobservable inputs for the asset or liability at the measurement date. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair value assets and liabilities and their placement within the fair value hierarchy levels.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The following table sets forth, by level within the fair value hierarchy, the Company's financial assets and liabilities (as applicable) that were accounted for at fair value on a recurring basis as of September 30, 2016 and 2015. Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The fair value presentation for over-the-counter swaps combines gas and oil swaps because a significant number of the counterparties enter into both gas and oil swap agreements with the Company.

	At Fair Value as of September 30, 2016				
Recurring Fair Value Measures	Level 1	Level 2	Level 3	Netting Adjustments(1)	Total(1)
	(Dollars in thousands)				
Assets:					
Cash Equivalents — Money Market Mutual Funds	\$ 113,407	\$ —	\$ —	\$ —	\$ 113,407
Derivative Financial Instruments:					
Commodity Futures Contracts — Gas	2,623	—	—	(2,276)	347
Over the Counter Swaps — Gas and Oil	—	119,654	—	(3,860)	115,794
Foreign Currency Contracts	—	—	—	(2,337)	(2,337)
Other Investments:					
Balanced Equity Mutual Fund	36,658	—	—	—	36,658
Fixed Income Mutual Fund	31,395	—	—	—	31,395
Common Stock — Financial Services Industry	2,902	—	—	—	2,902
Hedging Collateral Deposits	1,484	—	—	—	1,484
Total	\$ 188,469	\$ 119,654	\$ —	\$ (8,473)	\$ 299,650
Liabilities:					
Derivative Financial Instruments:					
Commodity Futures Contracts — Gas	\$ 2,276	\$ —	\$ —	\$ (2,276)	\$ —
Over the Counter Swaps — Gas and Oil	—	5,322	—	(3,860)	1,462
Foreign Currency Contracts	—	2,337	—	(2,337)	—
Total	\$ 2,276	\$ 7,659	\$ —	\$ (8,473)	\$ 1,462
Total Net Assets/(Liabilities)	\$ 186,193	\$ 111,995	\$ —	\$ —	\$ 298,188

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	At Fair Value as of September 30, 2015				
Recurring Fair Value Measures	Level 1	Level 2	Level 3	Netting Adjustments(1)	Total(1)
	(Dollars in thousands)				
Assets:					
Cash Equivalents — Money Market Mutual Funds	\$ 92,196	\$ —	\$ —	\$ —	\$ 92,196
Derivative Financial Instruments:					
Commodity Futures Contracts — Gas	6,373	—	—	(6,373)	—
Over the Counter Swaps — Gas and Oil	—	272,335	1,791	(808)	273,318
Foreign Currency Contracts	—	—	—	(2,955)	(2,955)
Other Investments:					
Balanced Equity Mutual Fund	34,884	—	—	—	34,884
Fixed Income Mutual Fund	8,004	—	—	—	8,004
Common Stock — Financial Services Industry	4,318	—	—	—	4,318
Other Common Stock	450	—	—	—	450
Hedging Collateral Deposits	11,124	—	—	—	11,124
Total	\$ 157,349	\$ 272,335	\$ 1,791	\$ (10,136)	\$ 421,339
Liabilities:					
Derivative Financial Instruments:					
Commodity Futures Contracts — Gas	\$ 15,276	\$ —	\$ —	\$ (6,373)	\$ 8,903
Over the Counter Swaps — Gas and Oil	—	1,981	—	(808)	1,173
Foreign Currency Contracts	—	2,955	—	(2,955)	—
Total	\$ 15,276	\$ 4,936	\$ —	\$ (10,136)	\$ 10,076
Total Net Assets/(Liabilities)	\$ 142,073	\$ 267,399	\$ 1,791	\$ —	\$ 411,263

(1) Netting Adjustments represent the impact of legally-enforceable master netting arrangements that allow the Company to net gain and loss positions held with the same counterparties. The net asset or net liability for each counterparty is recorded as an asset or liability on the Company's balance sheet.

Derivative Financial Instruments

At September 30, 2016 and 2015, the derivative financial instruments reported in Level 1 consist of natural gas NYMEX and ICE futures contracts used in the Company's Energy Marketing segment. Hedging collateral deposits of \$1.5 million (at September 30, 2016) and \$11.1 million (at September 30, 2015), which are associated with these futures contracts, have been reported in Level 1 as well. The derivative financial instruments reported in Level 2 at September 30, 2016 and 2015 consist of natural gas price swap agreements used in the Company's Exploration and Production and Energy Marketing segments, the majority of the crude oil price swap agreements used in the Company's Exploration and Production segment and foreign currency contracts used in the Company's Exploration and Production segment. The fair value of the Level 2 price swap agreements is based on an internal, discounted cash flow model that uses observable inputs (i.e. LIBOR based discount rates and basis differential information, if applicable, at active natural gas and crude oil trading markets). The fair value of the Level 2 foreign currency contracts is determined using the market approach based on observable market transactions of forward Canadian currency rates. The derivative financial instruments reported in Level 3 consisted of a small portion of the crude oil price swap agreements used in the Company's Exploration and Production segment at September 30, 2015 that settled prior to December 31, 2015. The fair value of the Level 3 crude oil price swap agreements was based on an internal, discounted cash flow model that uses both observable (i.e. LIBOR based discount rates) and unobservable inputs (i.e. basis differential information of crude oil trading markets with low trading volume).

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The accounting rules for fair value measurements and disclosures require consideration of the impact of nonperformance risk (including credit risk) from a market participant perspective in the measurement of the fair value of assets and liabilities. At September 30, 2016, the Company determined that nonperformance risk would have no material impact on its financial position or results of operation. To assess nonperformance risk, the Company considered information such as any applicable collateral posted, master netting arrangements, and applied a market-based method by using the counterparty's (assuming the derivative is in a gain position) or the Company's (assuming the derivative is in a loss position) credit default swaps rates.

The tables listed below provide reconciliations of the beginning and ending net balances for assets and liabilities measured at fair value and classified as Level 3 for the years ended September 30, 2016 and September 30, 2015, respectively. For the years ended September 30, 2016 and September 30, 2015, no transfers in or out of Level 1 or Level 2 occurred. There were no purchases or sales of derivative financial instruments during the periods presented in the tables below. All settlements of the derivative financial instruments are reflected in the Gains/Losses Realized and Included in Earnings column of the tables below (amounts in parentheses indicate credits in the derivative asset/liability accounts).

Fair Value Measurements Using Unobservable Inputs (Level 3)

	October 1, 2015	Total Gains/Losses		Transfer In/(Out) of Level 3	September 30, 2016
		(Gains)/Losses Realized and Included in Earnings	Gains/(Losses) Unrealized and Included in Other Comprehensive Income (Loss)		
			(Dollars in thousands)		
Derivative Financial Instruments(2)	\$ 1,791	\$ (2,002) (1)	\$ 211	\$ —	\$ —

(1) Amounts are reported in Operating Revenues in the Consolidated Statement of Income for the year ended September 30, 2016.

(2) Derivative Financial Instruments are shown on a net basis.

	October 1, 2014	Total Gains/Losses		Transfer In/(Out) of Level 3	September 30, 2015
		(Gains)/Losses Realized and Included in Earnings	Gains/(Losses) Unrealized and Included in Other Comprehensive Income (Loss)		
			(Dollars in thousands)		
Derivative Financial Instruments(2)	\$ 1,368	\$ (12,738) (1)	\$ 13,161	\$ —	\$ 1,791

(1) Amounts are reported in Operating Revenues in the Consolidated Statement of Income for the year ended September 30, 2015.

(2) Derivative Financial Instruments are shown on a net basis.

Note G — Financial Instruments

Long-Term Debt

The fair market value of the Company's debt, as presented in the table below, was determined using a discounted cash flow model, which incorporates the Company's credit ratings and current market conditions in determining the yield, and subsequently, the fair market value of the debt. Based on these criteria, the fair market value of long-term debt, including current portion, was as follows:

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	At September 30			
	2016 Carrying Amount	2016 Fair Value	2015 Carrying Amount	2015 Fair Value
	(Thousands)			
Long-Term Debt	\$ 2,086,252	\$ 2,255,562	\$ 2,084,009	\$ 2,129,558

The fair value amounts are not intended to reflect principal amounts that the Company will ultimately be required to pay. Carrying amounts for other financial instruments recorded on the Company's Consolidated Balance Sheets approximate fair value. The fair value of long-term debt was calculated using observable inputs (U.S. Treasuries/LIBOR for the risk-free component and company specific credit spread information — generally obtained from recent trade activity in the debt). As such, the Company considers the debt to be Level 2.

Any temporary cash investments, notes payable to banks and commercial paper are stated at cost. Temporary cash investments are considered Level 1, while notes payable to banks and commercial paper are considered to be Level 2. Given the short-term nature of the notes payable to banks and commercial paper, the Company believes cost is a reasonable approximation of fair value.

Other Investments

Investments in life insurance are stated at their cash surrender values or net present value as discussed below. Investments in an equity mutual fund, a fixed income mutual fund and the stock of an insurance company (marketable equity securities), as discussed below, are stated at fair value based on quoted market prices.

Other investments include cash surrender values of insurance contracts (net present value in the case of split-dollar collateral assignment arrangements) and marketable equity and fixed income securities. The values of the insurance contracts amounted to \$39.7 million and \$45.3 million at September 30, 2016 and 2015, respectively. The fair value of the equity mutual fund was \$36.7 million and \$34.9 million at September 30, 2016 and 2015, respectively. The gross unrealized gain on this equity mutual fund was \$7.9 million at September 30, 2016 and \$6.5 million at September 30, 2015. The fair value of the fixed income mutual fund was \$31.4 million and \$8.0 million at September 30, 2016 and 2015, respectively. The gross unrealized gain on this fixed income mutual fund was less than \$0.1 million at September 30, 2016. The fair value of the stock of an insurance company was \$2.9 million and \$4.3 million at September 30, 2016 and 2015, respectively. The gross unrealized gain on this stock was \$1.6 million and \$2.6 million at September 30, 2016 and 2015, respectively. The insurance contracts and marketable equity and fixed income securities are primarily informal funding mechanisms for various benefit obligations the Company has to certain employees.

Derivative Financial Instruments

The Company uses derivative financial instruments to manage commodity price risk in the Exploration and Production segment as well as the Energy Marketing segment. The Company enters into futures contracts and over-the-counter swap agreements for natural gas and crude oil to manage the price risk associated with forecasted sales of gas and oil. In addition, the Company also enters into foreign exchange forward contracts to manage the risk of currency fluctuations associated with transportation costs denominated in Canadian currency in the Exploration and Production segment. These instruments are accounted for as cash flow hedges. The Company also enters into futures contracts and swaps, which are accounted for as cash flow hedges, to manage the price risk associated with forecasted gas purchases. The Company enters into futures contracts and swaps to mitigate risk associated with fixed price sales commitments, fixed price purchase commitments, and the decline in value of natural gas held in storage. These instruments are accounted for as fair value hedges. The duration of the Company's combined cash flow and fair value hedges does not typically exceed 5 years while the foreign currency forward contracts do not exceed ten years. The Exploration and Production segment holds the majority of the Company's

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

derivative financial instruments. The derivative financial instruments held by the Energy Marketing segment are not considered to be material to the Company.

The Company has presented its net derivative assets and liabilities as “Fair Value of Derivative Financial Instruments” on its Consolidated Balance Sheets at September 30, 2016 and September 30, 2015. Substantially all of the derivative financial instruments reported on those line items relate to commodity contracts and a small portion relates to foreign currency forward contracts.

Cash Flow Hedges

For derivative instruments that are designated and qualify as a cash flow hedge, the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income (loss) and reclassified into earnings in the period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings.

As of September 30, 2016, the Company had the following commodity derivative contracts (swaps and futures contracts) outstanding:

<u>Commodity</u>	<u>Units</u>
Natural Gas	159.2 Bcf (short positions)
Natural Gas	0.7 Bcf (long positions)
Crude Oil	1,755,000 Bbls (short positions)

As of September 30, 2016, the Company was hedging a total of \$78.5 million of forecasted transportation costs denominated in Canadian dollars with foreign currency forward contracts (long positions).

As of September 30, 2016, the Company had \$111.8 million (\$64.8 million after tax) of net hedging gains included in the accumulated other comprehensive income (loss) balance. It is expected that \$83.2 million (\$48.2 million after tax) of such unrealized gains will be reclassified into the Consolidated Statement of Income within the next 12 months as the underlying hedged transactions are recorded in earnings.

**The Effect of Derivative Financial Instruments on the Statement of Financial Performance for the
Year Ended September 30, 2016 and 2015 (Dollar Amounts in Thousands)**

Derivatives in Cash Flow Hedging Relationships	Amount of Derivative Gain or (Loss) Recognized in Other Comprehensive Income (Loss) on the Consolidated Statement of Comprehensive Income (Loss) (Effective Portion) for the Year Ended September 30,		Location of Derivative Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income (Loss) on the Consolidated Balance Sheet into the Consolidated Statement of Income (Effective Portion)	Amount of Derivative Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income (Loss) on the Consolidated Balance Sheet into the Consolidated Statement of Income (Effective Portion) for the Year Ended September 30,		Location of Derivative Gain or (Loss) Recognized in the Consolidated Statement of Income (Ineffective Portion and Amount Excluded from Effectiveness Testing)	Derivative Gain or (Loss) Recognized in the Consolidated Statement of Income (Ineffective Portion and Amount Excluded from Effectiveness Testing) for the Year Ended September 30,	
	2016	2015		2016	2015		2016	2015
Commodity Contracts	\$ 58,714	\$ 377,957	Operating Revenue	\$ 216,823	\$ 180,069	Operating Revenue	\$ 392	\$ 3,563
Commodity Contracts	1,585	6,016	Purchased Gas	4,520	4,884	Not Applicable	—	—
Foreign Currency Contracts	194	(2,955)	Operation and Maintenance Expense	(424)	—	Not Applicable	—	—
Total	<u>\$ 60,493</u>	<u>\$ 381,018</u>		<u>\$ 220,919</u>	<u>\$ 184,953</u>		<u>\$ 392</u>	<u>\$ 3,563</u>

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Fair Value Hedges

The Company utilizes fair value hedges to mitigate risk associated with fixed price sales commitments, fixed price purchase commitments, and the decline in the value of certain natural gas held in storage. With respect to fixed price sales commitments, the Company enters into long positions to mitigate the risk of price increases for natural gas supplies that could occur after the Company enters into fixed price sales agreements with its customers. With respect to fixed price purchase commitments, the Company enters into short positions to mitigate the risk of price decreases that could occur after the Company locks into fixed price purchase deals with its suppliers. With respect to storage hedges, the Company enters into short positions to mitigate the risk of price decreases that could result in a lower of cost or market writedown of the value of natural gas in storage that is recorded in the Company's financial statements. As of September 30, 2016, the Company's Energy Marketing segment had fair value hedges covering approximately 12.7 Bcf (12.1 Bcf of fixed price sales commitments, 0.1 Bcf of fixed price purchase commitments and 0.5 Bcf of commitments related to the withdrawal of storage gas). For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative as well as the offsetting gain or loss on the hedged item attributable to the hedged risk completely offset each other in current earnings, as shown below.

Derivatives in Fair Value Hedging Relationships	Location of Gain or (Loss) on Derivative and Hedged Item Recognized in the Consolidated Statement of Income	Amount of Gain or (Loss) on Derivative Recognized in the Consolidated Statement of Income for the Year Ended September 30, 2016	Amount of Gain or (Loss) on Hedged Item Recognized in the Consolidated Statement of Income for the Year Ended September 30, 2016
(In thousands)			
Commodity Contracts	Operating Revenues	\$ 12,683	\$ (12,683)
Commodity Contracts	Purchased Gas	(380)	380
		\$ 12,303	\$ (12,303)

Credit Risk

The Company may be exposed to credit risk on any of the derivative financial instruments that are in a gain position. Credit risk relates to the risk of loss that the Company would incur as a result of nonperformance by counterparties pursuant to the terms of their contractual obligations. To mitigate such credit risk, management performs a credit check, and then on a quarterly basis monitors counterparty credit exposure. The majority of the Company's counterparties are financial institutions and energy traders. The Company has over-the-counter swap positions and applicable foreign currency forward contracts with seventeen counterparties of which sixteen are in a net gain position. On average, the Company had \$7.0 million of credit exposure per counterparty in a gain position at September 30, 2016. The maximum credit exposure per counterparty in a gain position at September 30, 2016 was \$20.6 million . As of September 30, 2016, no collateral was received from the counterparties by the Company. The Company's gain position on such derivative financial instruments had not exceeded the established thresholds at which the counterparties would be required to post collateral, nor had the counterparties' credit ratings declined to levels at which the counterparties were required to post collateral.

As of September 30, 2016, thirteen of the seventeen counterparties to the Company's outstanding derivative instrument contracts (specifically the over-the-counter swaps and applicable foreign currency forward contracts) had a common credit-risk related contingency feature. In the event the Company's credit rating increases or falls below a certain threshold (applicable debt ratings), the available credit extended to the Company would either increase or decrease. A decline in the Company's credit rating, in and of itself, would not cause the Company to be required to increase the level of its hedging collateral deposits (in the form of cash deposits, letters of credit or treasury debt instruments). If the Company's outstanding derivative instrument contracts were in a liability position (or if the liability were larger) and/or the Company's credit rating declined, then additional hedging collateral

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

deposits may be required. At September 30, 2016, the fair market value of the derivative financial instrument assets with a credit-risk related contingency feature was \$73.0 million according to the Company's internal model (discussed in Note F — Fair Value Measurements). For its over-the-counter swap agreements and foreign currency forward contracts, no hedging collateral deposits were required to be posted by the Company at September 30, 2016.

For its exchange traded futures contracts, the Company was required to post \$1.5 million in hedging collateral deposits as of September 30, 2016. As these are exchange traded futures contracts, there are no specific credit-risk related contingency features. The Company posts hedging collateral based on open positions and margin requirements it has with its counterparties.

The Company's requirement to post hedging collateral deposits and the Company's right to receive hedging collateral deposits is based on the fair value determined by the Company's counterparties, which may differ from the Company's assessment of fair value. Hedging collateral deposits may also include closed derivative positions in which the broker has not cleared the cash from the account to offset the derivative liability. The Company records liabilities related to closed derivative positions in Other Accruals and Current Liabilities on the Consolidated Balance Sheet. These liabilities are relieved when the broker clears the cash from the hedging collateral deposit account. This is discussed in Note A under Hedging Collateral Deposits.

Note H — Retirement Plan and Other Post-Retirement Benefits

The Company has a tax-qualified, noncontributory, defined-benefit retirement plan (Retirement Plan). The Retirement Plan covers certain non-collectively bargained employees hired before July 1, 2003 and certain collectively bargained employees hired before November 1, 2003. Certain non-collectively bargained employees hired after June 30, 2003 and certain collectively bargained employees hired after October 31, 2003 are eligible for a Retirement Savings Account benefit provided under the Company's defined contribution Tax-Deferred Savings Plans. Costs associated with the Retirement Savings Account were \$2.6 million, \$2.3 million and \$1.9 million for the years ended September 30, 2016, 2015 and 2014, respectively. Costs associated with the Company's contributions to the Tax-Deferred Savings Plans, exclusive of the costs associated with the Retirement Savings Account, were \$5.9 million, \$5.8 million, and \$5.2 million for the years ended September 30, 2016, 2015 and 2014, respectively.

The Company provides health care and life insurance benefits (other post-retirement benefits) for a majority of its retired employees. The other post-retirement benefits cover certain non-collectively bargained employees hired before January 1, 2003 and certain collectively bargained employees hired before October 31, 2003.

The Company's policy is to fund the Retirement Plan with at least an amount necessary to satisfy the minimum funding requirements of applicable laws and regulations and not more than the maximum amount deductible for federal income tax purposes. The Company has established VEBA trusts for its other post-retirement benefits. Contributions to the VEBA trusts are tax deductible, subject to limitations contained in the Internal Revenue Code and regulations and are made to fund employees' other post-retirement benefits, as well as benefits as they are paid to current retirees. In addition, the Company has established 401(h) accounts for its other post-retirement benefits. They are separate accounts within the Retirement Plan trust used to pay retiree medical benefits for the associated participants in the Retirement Plan. Although these accounts are in the Retirement Plan trust, for funding status purposes as shown below, the 401(h) accounts are included in Fair Value of Assets under Other Post-Retirement Benefits. Contributions are tax-deductible when made, subject to limitations contained in the Internal Revenue Code and regulations.

The expected return on Retirement Plan assets, a component of net periodic benefit cost shown in the tables below, is applied to the market-related value of plan assets. The market-related value of plan assets is the market value as of the measurement date adjusted for variances between actual returns and expected returns (from previous years) that have not been reflected in net periodic benefit costs. The expected return on other post-retirement

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

benefit assets (i.e. the VEBA trusts and 401(h) accounts), which is a component of net periodic benefit cost shown in the tables below, is applied to the fair value of assets as of the measurement date.

Reconciliations of the Benefit Obligations, Plan Assets and Funded Status, as well as the components of Net Periodic Benefit Cost and the Weighted Average Assumptions of the Retirement Plan and other post-retirement benefits are shown in the tables below. The date used to measure the Benefit Obligations, Plan Assets and Funded Status is September 30 for fiscal years 2016, 2015 and 2014.

	Retirement Plan			Other Post-Retirement Benefits		
	Year Ended September 30			Year Ended September 30		
	2016	2015	2014	2016	2015	2014
	(Thousands)					
Change in Benefit Obligation						
Benefit Obligation at Beginning of Period	\$ 1,026,190	\$ 999,499	\$ 946,305	\$ 464,987	\$ 465,583	\$ 460,634
Service Cost	11,710	12,047	11,987	2,331	2,693	2,939
Interest Cost	42,315	41,217	43,574	20,386	19,285	21,308
Plan Participants' Contributions	—	—	—	2,558	2,242	2,265
Retiree Drug Subsidy Receipts	—	—	—	1,925	1,338	1,419
Amendments(1)	—	7,752	—	—	—	—
Actuarial (Gain) Loss	76,309	23,426	53,887	60,402	(1,575)	1,087
Benefits Paid	(59,103)	(57,751)	(56,254)	(26,451)	(24,579)	(24,069)
Benefit Obligation at End of Period	\$ 1,097,421	\$ 1,026,190	\$ 999,499	\$ 526,138	\$ 464,987	\$ 465,583
Change in Plan Assets						
Fair Value of Assets at Beginning of Period	\$ 834,870	\$ 869,791	\$ 799,307	\$ 477,959	\$ 497,601	\$ 472,392
Actual Return on Plan Assets	87,008	(13,370)	93,238	37,415	534	44,898
Employer Contributions	7,000	36,200	33,500	2,839	2,161	2,115
Plan Participants' Contributions	—	—	—	2,558	2,242	2,265
Benefits Paid	(59,103)	(57,751)	(56,254)	(26,451)	(24,579)	(24,069)
Fair Value of Assets at End of Period	\$ 869,775	\$ 834,870	\$ 869,791	\$ 494,320	\$ 477,959	\$ 497,601
Net Amount Recognized at End of Period (Funded Status)	\$ (227,646)	\$ (191,320)	\$ (129,708)	\$ (31,818)	\$ 12,972	\$ 32,018
Amounts Recognized in the Balance Sheets Consist of:						
Non-Current Liabilities	\$ (227,646)	\$ (191,320)	\$ (129,708)	\$ (49,467)	\$ (11,487)	\$ (4,494)
Non-Current Assets	—	—	—	17,649	24,459	36,512
Net Amount Recognized at End of Period	\$ (227,646)	\$ (191,320)	\$ (129,708)	\$ (31,818)	\$ 12,972	\$ 32,018
Accumulated Benefit Obligation	\$ 1,039,408	\$ 968,984	\$ 940,068	N/A	N/A	N/A
Weighted Average Assumptions Used to Determine Benefit Obligation at September 30						
Discount Rate	3.60%	4.25%	4.25%	3.70%	4.50%	4.25%
Rate of Compensation Increase	4.70%	4.75%	4.75%	4.70%	4.75%	4.75%

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Retirement Plan			Other Post-Retirement Benefits		
	Year Ended September 30			Year Ended September 30		
	2016	2015	2014	2016	2015	2014
(Thousands)						
Components of Net Periodic Benefit Cost						
Service Cost	\$ 11,710	\$ 12,047	\$ 11,987	\$ 2,331	\$ 2,693	\$ 2,939
Interest Cost	42,315	41,217	43,574	20,386	19,285	21,308
Expected Return on Plan Assets	(59,369)	(59,615)	(59,974)	(31,535)	(34,089)	(37,424)
Amortization of Prior Service Cost (Credit)	1,234	183	210	(912)	(1,913)	(2,138)
Recognition of Actuarial Loss(2)	32,248	36,129	36,007	5,530	4,148	2,645
Net Amortization and Deferral for Regulatory Purposes	3,957	7,739	8,151	17,123	20,322	23,263
Net Periodic Benefit Cost	\$ 32,095	\$ 37,700	\$ 39,955	\$ 12,923	\$ 10,446	\$ 10,593
Weighted Average Assumptions Used to Determine Net Periodic Benefit Cost at September 30						
Discount Rate	4.25%	4.25%	4.75%	4.50%	4.25%	4.75%
Expected Return on Plan Assets	7.25%	7.50%	8.00%	6.75%	7.00%	8.00%
Rate of Compensation Increase	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%

- (1) In fiscal 2015, the Company passed an amendment which updated the mortality table used in the Retirement Plan's definition of "actuarially equivalent" effective July 1, 2015. This increased the benefit obligation of the Retirement Plan.
- (2) Distribution Corporation's New York jurisdiction calculates the amortization of the actuarial loss on a vintage year basis over 10 years, as mandated by the NYPSC. All the other subsidiaries of the Company utilize the corridor approach.

The Net Periodic Benefit Cost in the table above includes the effects of regulation. The Company recovers pension and other post-retirement benefit costs in its Utility and Pipeline and Storage segments in accordance with the applicable regulatory commission authorizations. Certain of those commission authorizations established tracking mechanisms which allow the Company to record the difference between the amount of pension and other post-retirement benefit costs recoverable in rates and the amounts of such costs as determined under the existing authoritative guidance as either a regulatory asset or liability, as appropriate. Any activity under the tracking mechanisms (including the amortization of pension and other post-retirement regulatory assets and liabilities) is reflected in the Net Amortization and Deferral for Regulatory Purposes line item above.

In addition to the Retirement Plan discussed above, the Company also has Non-Qualified benefit plans that cover a group of management employees designated by the Chief Executive Officer of the Company. These plans provide for defined benefit payments upon retirement of the management employee, or to the spouse upon death of the management employee. The net periodic benefit cost associated with these plans were \$7.5 million, \$7.0 million and \$7.5 million in 2016, 2015 and 2014, respectively. The accumulated benefit obligations for the plans were \$72.4 million, \$66.0 million and \$65.7 million at September 30, 2016, 2015 and 2014, respectively. The projected benefit obligations for the plans were \$91.7 million, \$85.8 million and \$85.5 million at September 30, 2016, 2015 and 2014, respectively. At September 30, 2016, \$9.8 million of the projected benefit obligation is recorded in Other Accruals and Current Liabilities and the remaining \$81.9 million is recorded in Other Deferred Credits on the Consolidated Balance Sheets. At September 30, 2015, \$4.5 million of the projected benefit obligation

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

was recorded in Other Accruals and Current Liabilities and the remaining \$81.3 million was recorded in Other Deferred Credits on the Consolidated Balance Sheets. At September 30, 2014, \$6.6 million of the projected benefit obligation was recorded in Other Accruals and Current Liabilities and the remaining \$78.9 million was recorded in Other Deferred Credits on the Consolidated Balance Sheets. The weighted average discount rates for these plans were 2.80% , 3.50% and 3.50% as of September 30, 2016, 2015 and 2014, respectively and the weighted average rate of compensation increase for these plans were 7.75% , 7.75% and 7.50% as of September 30, 2016, 2015 and 2014, respectively.

The cumulative amounts recognized in accumulated other comprehensive income (loss), regulatory assets, and regulatory liabilities through fiscal 2016, the changes in such amounts during 2016, as well as the amounts expected to be recognized in net periodic benefit cost in fiscal 2017 are presented in the table below:

	Retirement Plan	Other Post-Retirement Benefits	Non-Qualified Benefit Plans
	(Thousands)		
Amounts Recognized in Accumulated Other Comprehensive Income (Loss), Regulatory Assets and Regulatory Liabilities(1)			
Net Actuarial Loss	\$ (303,602)	\$ (108,907)	\$ (27,041)
Prior Service (Cost) Credit	(7,191)	4,115	—
Net Amount Recognized	<u>\$ (310,793)</u>	<u>\$ (104,792)</u>	<u>\$ (27,041)</u>
Changes to Accumulated Other Comprehensive Income (Loss), Regulatory Assets and Regulatory Liabilities Recognized During Fiscal 2016(1)			
Increase in Actuarial Loss, excluding amortization(2)	\$ (48,670)	\$ (54,523)	\$ (5,450)
Change due to Amortization of Actuarial Loss	32,248	5,530	3,338
Prior Service (Cost) Credit	1,234	(912)	—
Net Change	<u>\$ (15,188)</u>	<u>\$ (49,905)</u>	<u>\$ (2,112)</u>
Amounts Expected to be Recognized in Net Periodic Benefit Cost in the Next Fiscal Year(1)			
Net Actuarial Loss	\$ (42,687)	\$ (18,415)	\$ (4,059)
Prior Service (Cost) Credit	(1,058)	429	—
Net Amount Expected to be Recognized	<u>\$ (43,745)</u>	<u>\$ (17,986)</u>	<u>\$ (4,059)</u>

(1) Amounts presented are shown before recognizing deferred taxes.

(2) Amounts presented include the impact of actuarial gains/losses related to return on assets, as well as the Actuarial (Gain) Loss amounts presented in the Change in Benefit Obligation.

In order to adjust the funded status of its pension (tax-qualified and non-qualified) and other post-retirement benefit plans at September 30, 2016, the Company recorded a \$55.9 million increase to Other Regulatory Assets in the Company's Utility and Pipeline and Storage segments and a \$11.3 million (pre-tax) decrease to Accumulated Other Comprehensive Income.

The effect of the discount rate change for the Retirement Plan in 2016 was to increase the projected benefit obligation of the Retirement Plan by \$78.5 million . In 2016, other actuarial experience decreased the projected benefit obligation for the Retirement Plan by \$2.2 million . The effect of the mortality assumption change for the Retirement Plan in 2015 was to increase the projected benefit obligation of the Retirement Plan by \$24.2 million . The effect of the discount rate change for the Retirement Plan in 2014 was to increase the projected benefit obligation of the Retirement Plan by \$53.7 million .

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Company made cash contributions totaling \$7.0 million to the Retirement Plan during the year ended September 30, 2016. The Company expects that the annual contribution to the Retirement Plan in 2017 will be in the range of \$15.0 million to \$20.0 million .

The following Retirement Plan benefit payments, which reflect expected future service, are expected to be paid by the Retirement Plan during the next five years and the five years thereafter: \$62.4 million in 2017; \$63.6 million in 2018; \$64.3 million in 2019; \$64.8 million in 2020; \$65.6 million in 2021; and \$333.9 million in the five years thereafter.

The effect of the discount rate change in 2016 was to increase the other post-retirement benefit obligation by \$49.4 million . Other actuarial experience increased the other post-retirement benefit obligation in 2016 by \$11.0 million primarily attributable to a revision in assumed per-capita claims cost, premiums, participant contributions and drug subsidy assumptions based on actual experience.

The effect of the discount rate change in 2015 was to decrease the other post-retirement benefit obligation by \$14.3 million . Other actuarial experience increased the other post-retirement benefit obligation in 2015 by \$12.8 million primarily attributable to the change in mortality assumption.

The effect of the discount rate change in 2014 was to increase the other post-retirement benefit obligation by \$26.4 million . Other actuarial experience decreased the other post-retirement benefit obligation in 2014 by \$25.3 million primarily attributable to a revision in assumed per-capita claims cost, premiums and participant contributions based on actual experience.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 provides for a prescription drug benefit under Medicare (Medicare Part D), as well as a federal subsidy to sponsors of retiree health care benefit plans that provide a benefit that is at least actuarially equivalent to Medicare Part D.

The estimated gross other post-retirement benefit payments and gross amount of Medicare Part D prescription drug subsidy receipts are as follows (dollars in thousands):

	Benefit Payments	Subsidy Receipts
2017	\$ 26,511	\$ (1,662)
2018	\$ 27,775	\$ (1,812)
2019	\$ 28,901	\$ (1,975)
2020	\$ 29,996	\$ (2,125)
2021	\$ 31,071	\$ (2,266)
2022 through 2026	\$ 164,611	\$ (13,295)

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Assumed health care cost trend rates as of September 30 were:

	2016	2015	2014
Rate of Medical Cost Increase for Pre Age 65 Participants	5.75% (1)	6.93% (2)	7.10% (2)
Rate of Medical Cost Increase for Post Age 65 Participants	4.75% (1)	6.68% (2)	6.73% (2)
Annual Rate of Increase in the Per Capita Cost of Covered Prescription Drug Benefits	9.00% (1)	7.17% (2)	7.47% (2)
Annual Rate of Increase in the Per Capita Medicare Part B Reimbursement	4.75% (1)	6.68% (2)	6.73% (2)
Annual Rate of Increase in the Per Capita Medicare Part D Subsidy	7.20% (1)	6.65% (2)	6.79% (2)

(1) It was assumed that this rate would gradually decline to 4.5% by 2039.

(2) It was assumed that this rate would gradually decline to 4.5% by 2028.

The health care cost trend rate assumptions used to calculate the per capita cost of covered medical care benefits have a significant effect on the amounts reported. If the health care cost trend rates were increased by 1% in each year, the other post-retirement benefit obligation as of October 1, 2016 would increase by \$70.7 million . This 1% change would also have increased the aggregate of the service and interest cost components of net periodic post-retirement benefit cost for 2016 by \$3.0 million . If the health care cost trend rates were decreased by 1% in each year, the other post-retirement benefit obligation as of October 1, 2016 would decrease by \$57.9 million . This 1% change would also have decreased the aggregate of the service and interest cost components of net periodic post-retirement benefit cost for 2016 by \$2.5 million .

The Company made cash contributions totaling \$2.6 million to its VEBA trusts and 401(h) accounts during the year ended September 30, 2016. In addition, the Company made direct payments of \$0.2 million to retirees not covered by the VEBA trusts and 401(h) accounts during the year ended September 30, 2016. The Company expects that the annual contribution to its VEBA trusts and 401(h) accounts in 2017 will be in the range of \$3.0 million to \$5.0 million .

Investment Valuation

The Retirement Plan assets and other post-retirement benefit assets are valued under the current fair value framework. See Note F — Fair Value Measurements for further discussion regarding the definition and levels of fair value hierarchy established by the authoritative guidance.

The inputs or methodologies used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. Below is a listing of the major categories of plan assets held as of September 30, 2016 and 2015, as well as the associated level within the fair value hierarchy in which the fair value measurements in their entirety fall, based on the lowest level input that is significant to the fair value measurement in its entirety (dollars in thousands):

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Total Fair Value Amounts at September 30, 2016	Level 1	Level 2	Level 3
Retirement Plan Investments				
Domestic Equities(1)	\$ 256,796	\$ 188,253	\$ 68,543	\$ —
International Equities(2)	104,592	—	104,592	—
Global Equities(3)	120,025	—	120,025	—
Domestic Fixed Income(4)	342,442	1,647	340,795	—
International Fixed Income(5)	744	407	337	—
Global Fixed Income(6)	81,146	—	81,146	—
Real Estate	2,970	—	—	2,970
Cash and Cash Equivalents	24,812	—	24,812	—
Total Retirement Plan Investments	933,527	190,307	740,250	2,970
401(h) Investments	(58,707)	(12,025)	(46,494)	(188)
Total Retirement Plan Investments (excluding 401(h) Investments)	\$ 874,820	\$ 178,282	\$ 693,756	\$ 2,782
Miscellaneous Accruals, Interest Receivables, and Non-Interest Cash	(5,045)			
Total Retirement Plan Assets	\$ 869,775			

	Total Fair Value Amounts at September 30, 2015	Level 1	Level 2	Level 3
Retirement Plan Investments				
Domestic Equities(1)	\$ 229,811	\$ 170,166	\$ 59,645	\$ —
International Equities(2)	96,478	—	96,478	—
Global Equities(3)	112,802	—	112,802	—
Domestic Fixed Income(4)	303,508	1,539	301,969	—
International Fixed Income(5)	883	883	—	—
Global Fixed Income(6)	86,773	—	86,773	—
Hedge Fund Investments	26,490	—	—	26,490
Real Estate	4,724	—	—	4,724
Cash and Cash Equivalents	27,723	—	27,723	—
Total Retirement Plan Investments	889,192	172,588	685,390	31,214
401(h) Investments	(53,686)	(10,420)	(41,381)	(1,885)
Total Retirement Plan Investments (excluding 401(h) Investments)	\$ 835,506	\$ 162,168	\$ 644,009	\$ 29,329
Miscellaneous Accruals, Interest Receivables, and Non-Interest Cash	(636)			
Total Retirement Plan Assets	\$ 834,870			

(1) Domestic Equities include mostly collective trust funds, common stock, and exchange traded funds.

(2) International Equities include mostly collective trust funds and common stock.

(3) Global Equities are comprised of collective trust funds.

(4) Domestic Fixed Income securities include mostly collective trust funds, corporate/government bonds and mortgages, and exchange traded funds.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

- (5) International Fixed Income securities are comprised mostly of an exchange traded fund.
(6) Global Fixed Income securities are comprised of a collective trust fund.

	Total Fair Value Amounts at September 30, 2016	Level 1	Level 2	Level 3
Other Post-Retirement Benefit Assets held in VEBA Trusts				
Collective Trust Funds — Domestic Equities	\$ 139,617	\$ 139,617	\$ —	\$ —
Collective Trust Funds — International Equities	51,488	—	51,488	—
Exchange Traded Funds — Fixed Income	230,761	230,761	—	—
Cash Held in Collective Trust Funds	13,176	—	13,176	—
Total VEBA Trust Investments	435,042	370,378	64,664	—
401(h) Investments	58,707	12,025	46,494	188
Total Investments (including 401(h) Investments)	\$ 493,749	\$ 382,403	\$ 111,158	\$ 188
Miscellaneous Accruals (Including Current and Deferred Taxes, Claims Incurred But Not Reported, Administrative)	571			
Total Other Post-Retirement Benefit Assets	\$ 494,320			

	Total Fair Value Amounts at September 30, 2015	Level 1	Level 2	Level 3
Other Post-Retirement Benefit Assets held in VEBA Trusts				
Collective Trust Funds — Domestic Equities	\$ 128,336	\$ —	\$ 128,336	\$ —
Collective Trust Funds — International Equities	48,857	—	48,857	—
Exchange Traded Funds — Fixed Income	233,471	233,471	—	—
Cash Held in Collective Trust Funds	13,119	—	13,119	—
Total VEBA Trust Investments	423,783	233,471	190,312	—
401(h) Investments	53,686	10,420	41,381	1,885
Total Investments (including 401(h) Investments)	\$ 477,469	\$ 243,891	\$ 231,693	\$ 1,885
Miscellaneous Accruals (Including Current and Deferred Taxes, Claims Incurred But Not Reported, Administrative)	490			
Total Other Post-Retirement Benefit Assets	\$ 477,959			

The fair values disclosed in the above tables may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables provide a reconciliation of the beginning and ending balances of the Retirement Plan and other post-retirement benefit assets measured at fair value on a recurring basis where the determination of fair value includes significant unobservable inputs (Level 3). For the years ended September 30, 2016 and September 30, 2015, there were no transfers from Level 1 to Level 2. In addition, as shown in the following tables, there were no transfers in or out of Level 3.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Retirement Plan Level 3 Assets (Thousands)			
	Hedge Funds	Real Estate	Excluding 401(h) Investments	Total
Balance at September 30, 2014	\$ 45,213	\$ 3,792	\$ (2,909)	\$ 46,096
Realized Gains/(Losses)	2,284	—	(135)	2,149
Unrealized Gains/(Losses)	317	871	(103)	1,085
Purchases	—	82	(5)	77
Sales	(21,324)	(21)	1,267	(20,078)
Balance at September 30, 2015	26,490	4,724	(1,885)	29,329
Realized Gains/(Losses)	5,878	—	(354)	5,524
Unrealized Gains/(Losses)	(5,445)	(404)	344	(5,505)
Sales	(26,923)	(1,350)	1,707	(26,566)
Balance at September 30, 2016	\$ —	\$ 2,970	\$ (188)	\$ 2,782

	Other Post-Retirement Benefit Level 3 Assets (Thousands)	
	401(h) Investments	
Balance at September 30, 2014	\$	2,909
Realized Gains/(Losses)		135
Unrealized Gains/(Losses)		103
Purchases		5
Sales		(1,267)
Balance at September 30, 2015		1,885
Realized Gains/(Losses)		354
Unrealized Gains/(Losses)		(344)
Sales		(1,707)
Balance at September 30, 2016	\$	188

The Company's assumption regarding the expected long-term rate of return on plan assets is 7.00% (Retirement Plan) and 6.50% (other post-retirement benefits), effective for fiscal 2017. The return assumption reflects the anticipated long-term rate of return on the plan's current and future assets. The Company utilizes projected capital market conditions and the plan's target asset class and investment manager allocations to set the assumption regarding the expected return on plan assets.

The long-term investment objective of the Retirement Plan trust, the VEBA trusts and the 401(h) accounts is to achieve the target total return in accordance with the Company's risk tolerance. Assets are diversified utilizing a mix of equities, fixed income and other securities (including real estate). The target allocation for the Retirement Plan and the VEBA trusts (including 401(h) accounts) is 40 - 60% equity securities, 40 - 60% fixed income securities and 0 - 15% other. Risk tolerance is established through consideration of plan liabilities, plan funded status and corporate financial condition. The assets of the Retirement Plan trusts, VEBA trusts and the 401(h) accounts have no significant concentrations of risk in any one country (other than the United States), industry or entity.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Investment managers are retained to manage separate pools of assets. Comparative market and peer group performance of individual managers and the total fund are monitored on a regular basis, and reviewed by the Company's Retirement Committee on at least a quarterly basis.

The discount rate used to present value the future benefit payment obligations of the Retirement Plan is 3.60% at September 30, 2016. The discount rate used to present value the future benefit payment obligations of the Company's other post-retirement benefits is 3.70% as of September 30, 2016. The discount rate used to present value the future benefit payment obligations of the Non-Qualified benefit plans is 2.80% as of September 30, 2016. The Company utilizes the Mercer Yield Curve Above Mean Model to determine the discount rate. The yield curve is a spot rate yield curve that provides a zero-coupon interest rate for each year into the future. Each year's anticipated benefit payments are discounted at the associated spot interest rate back to the measurement date. The discount rate is then determined based on the spot interest rate that results in the same present value when applied to the same anticipated benefit payments. In determining the spot rates, the model will exclude coupon interest rates that are in the lower 50th percentile based on the assumption that the Company would not utilize more expensive (i.e. lower yield) instruments to settle its liabilities.

Note I — Commitments and Contingencies

Environmental Matters

The Company is subject to various federal, state and local laws and regulations relating to the protection of the environment. The Company has established procedures for the ongoing evaluation of its operations to identify potential environmental exposures and to comply with regulatory requirements.

It is the Company's policy to accrue estimated environmental clean-up costs (investigation and remediation) when such amounts can reasonably be estimated and it is probable that the Company will be required to incur such costs. At September 30, 2016, the Company has estimated its remaining clean-up costs related to former manufactured gas plant sites and third party waste disposal sites will be approximately \$4.5 million. The main component of this liability is discussed below under "Former Manufactured Gas Plant Sites." This estimated liability has been recorded in Other Deferred Credits on the Consolidated Balance Sheet at September 30, 2016. The Company expects to recover its environmental clean-up costs through rate recovery over a period of approximately 12 years. Other than as discussed below, the Company is currently not aware of any material additional exposure to environmental liabilities. However, changes in environmental laws and regulations, new information or other factors could have an adverse financial impact on the Company.

Former Manufactured Gas Plant Sites

The Company has incurred investigation and/or clean-up costs at several former manufactured gas plant sites in New York and Pennsylvania. The Company continues to be responsible for future ongoing monitoring and long-term maintenance at two sites.

The most significant ongoing clean-up matter currently facing the Company is a former manufactured gas plant site located in New York. In February 2009, the Company received approval from the NYDEC of a Remedial Design Work Plan (RDWP) for this site. In October 2010, the Company submitted a RDWP addendum to conduct additional Preliminary Design Investigation field activities necessary to design a successful remediation. As a result of this work, the Company submitted to the NYDEC a proposal to amend the NYDEC's Record of Decision remedy for the site. In April 2013, the NYDEC approved the Company's proposed amendment. Final remedial design work for the site was completed, and active remedial work has also been completed. Restoration work is substantially complete. An estimated minimum liability related to the remediation of this site of \$2.8 million has been recorded.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Other

The Company, in its Utility segment, Energy Marketing segment, and Exploration and Production segment, has entered into contractual commitments in the ordinary course of business, including commitments to purchase gas, transportation, and storage service to meet customer gas supply needs. The future gas purchase, transportation and storage contract commitments during the next five years and thereafter are as follows: \$241.2 million in 2017, \$96.5 million in 2018, \$94.7 million in 2019, \$95.3 million in 2020, \$83.8 million in 2021 and \$794.4 million thereafter. Gas prices within the gas purchase contracts are variable based on NYMEX prices adjusted for basis. In the Utility segment, these costs are subject to state commission review, and are being recovered in customer rates. Management believes that, to the extent any stranded pipeline costs are generated by the unbundling of services in the Utility segment's service territory, such costs will be recoverable from customers.

The Company has entered into leases for the use of compressors, drilling rigs, buildings and other items. These leases are accounted for as operating leases. The future lease commitments during the next five years and thereafter are as follows: \$13.7 million in 2017, \$5.8 million in 2018, \$4.2 million in 2019, \$3.0 million in 2020, \$1.5 million in 2021 and \$0.4 million thereafter.

The Company, in its Pipeline and Storage segment and Gathering segment, has entered into several contractual commitments associated with various pipeline, compressor and gathering system expansion projects. As of September 30, 2016, the future contractual commitments related to the expansion projects are \$52.5 million in 2017, \$7.2 million in 2018, \$0.1 million in 2019, \$0.1 million in 2020, \$0.1 million in 2021 and \$0.5 million thereafter.

The Company, in its Exploration and Production segment, has entered into contractual obligations associated with hydraulic fracturing and fuel. The future contractual commitments are \$25.2 million in 2017. There are no contractual commitments extending beyond 2017.

The Company is involved in other litigation arising in the normal course of business. In addition to the regulatory matters discussed in Note C — Regulatory Matters, the Company is involved in other regulatory matters arising in the normal course of business. These other litigation and regulatory matters may include, for example, negligence claims and tax, regulatory or other governmental audits, inspections, investigations and other proceedings. These matters may involve state and federal taxes, safety, compliance with regulations, rate base, cost of service and purchased gas cost issues, among other things. While these other matters arising in the normal course of business could have a material effect on earnings and cash flows in the period in which they are resolved, an estimate of the possible loss or range of loss, if any, cannot be made at this time.

Note J — Business Segment Information

The Company reports financial results for five segments: Exploration and Production, Pipeline and Storage, Gathering, Utility and Energy Marketing. The division of the Company's operations into reportable segments is based upon a combination of factors including differences in products and services, regulatory environment and geographic factors.

The Exploration and Production segment, through Seneca, is engaged in exploration for and development of natural gas and oil reserves in California and the Appalachian region of the United States.

The Pipeline and Storage segment operations are regulated by the FERC for both Supply Corporation and Empire. Supply Corporation transports and stores natural gas for utilities (including Distribution Corporation), natural gas marketers (including NFR), exploration and production companies (including Seneca) and pipeline companies in the northeastern United States markets. Empire transports natural gas to major industrial companies, utilities (including Distribution Corporation) and power producers in New York State.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The Gathering segment is comprised of Midstream Corporation's operations. Midstream Corporation builds, owns and operates natural gas processing and pipeline gathering facilities in the Appalachian region and currently provides gathering services to Seneca.

The Utility segment operations are regulated by the NYPSC and the PaPUC and are carried out by Distribution Corporation. Distribution Corporation sells natural gas to retail customers and provides natural gas transportation services in western New York and northwestern Pennsylvania.

The Energy Marketing segment is comprised of NFR's operations. NFR markets natural gas to industrial, wholesale, commercial, public authority and residential customers primarily in western and central New York and northwestern Pennsylvania, offering competitively priced natural gas for its customers.

The data presented in the tables below reflects financial information for the segments and reconciliations to consolidated amounts. The accounting policies of the segments are the same as those described in Note A — Summary of Significant Accounting Policies. Sales of products or services between segments are billed at regulated rates or at market rates, as applicable. The Company evaluates segment performance based on income before discontinued operations, extraordinary items and cumulative effects of changes in accounting (when applicable). When these items are not applicable, the Company evaluates performance based on net income.

	Year Ended September 30, 2016									
	Exploration and Production	Pipeline and Storage	Gathering	Utility	Energy Marketing	Total Reportable Segments	All Other	Corporate and Intersegment Eliminations	Total Consolidated	
	(Thousands)									
Revenue from External Customers(1)	\$ 607,113	\$ 215,674	\$ 374	\$ 531,024	\$ 93,578	\$ 1,447,763	\$ 3,753	\$ 900	\$ 1,452,416	
Intersegment Revenues	\$ —	\$ 90,755	\$ 89,073	\$ 13,123	\$ 884	\$ 193,835	\$ —	\$ (193,835)	\$ —	
Interest Income	\$ 858	\$ 770	\$ 297	\$ 1,737	\$ 422	\$ 4,084	\$ 117	\$ 34	\$ 4,235	
Interest Expense	\$ 55,434	\$ 33,327	\$ 8,872	\$ 27,582	\$ 49	\$ 125,264	\$ —	\$ (4,220)	\$ 121,044	
Depreciation, Depletion and Amortization	\$ 139,963	\$ 43,273	\$ 15,282	\$ 48,618	\$ 278	\$ 247,414	\$ 1,260	\$ 743	\$ 249,417	
Income Tax Expense (Benefit)	\$ (334,029)	\$ 50,241	\$ 24,334	\$ 25,602	\$ 2,460	\$ (231,392)	\$ 561	\$ (1,718)	\$ (232,549)	
Significant Non-Cash Item: Impairment of Oil and Gas Producing Properties	\$ 948,307	\$ —	\$ —	\$ —	\$ —	\$ 948,307	\$ —	\$ —	\$ 948,307	
Segment Profit: Net Income (Loss)	\$ (452,842)	\$ 76,610	\$ 30,499	\$ 50,960	\$ 4,348	\$ (290,425)	\$ 778	\$ (1,311)	\$ (290,958)	
Expenditures for Additions to Long-Lived Assets	\$ 256,104	\$ 114,250	\$ 54,293	\$ 98,007	\$ 34	\$ 522,688	\$ 37	\$ 326	\$ 523,051	
	At September 30, 2016									
	(Thousands)									
Segment Assets	\$ 1,323,081	\$ 1,680,734	\$ 534,259	\$ 2,021,514	\$ 63,392	\$ 5,622,980	\$ 77,138	\$ (63,731)	\$ 5,636,387	

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Year Ended September 30, 2015									
	Exploration and Production	Pipeline and Storage	Gathering	Utility	Energy Marketing	Total Reportable Segments	All Other	Corporate and Intersegment Elimination	Total Consolidated	
	(Thousands)									
Revenue from External Customers(1)	\$ 693,441	\$ 203,089	\$ 497	\$ 700,761	\$ 159,857	\$ 1,757,645	\$ 2,352	\$ 916	\$ 1,760,913	
Intersegment Revenues	\$ —	\$ 88,251	\$ 76,709	\$ 15,506	\$ 849	\$ 181,315	\$ —	\$ (181,315)	\$ —	
Interest Income	\$ 2,554	\$ 474	\$ 140	\$ 2,220	\$ 195	\$ 5,583	\$ 66	\$ (1,727)	\$ 3,922	
Interest Expense	\$ 46,726	\$ 27,658	\$ 1,627	\$ 28,176	\$ 27	\$ 104,214	\$ —	\$ (4,743)	\$ 99,471	
Depreciation, Depletion and Amortization	\$ 239,818	\$ 38,178	\$ 10,829	\$ 45,616	\$ 209	\$ 334,650	\$ 832	\$ 676	\$ 336,158	
Income Tax Expense (Benefit)	\$ (428,217)	\$ 48,113	\$ 24,721	\$ 33,143	\$ 4,547	\$ (317,693)	\$ 13	\$ (1,456)	\$ (319,136)	
Significant Non-Cash Item: Impairment of Oil and Gas Producing Properties	\$ 1,126,257	\$ —	\$ —	\$ —	\$ —	\$ 1,126,257	\$ —	\$ —	\$ 1,126,257	
Segment Profit: Net Income (Loss)	\$ (556,974)	\$ 80,354	\$ 31,849	\$ 63,271	\$ 7,766	\$ (373,734)	\$ (2)	\$ (5,691)	\$ (379,427)	
Expenditures for Additions to Long-Lived Assets	\$ 557,313	\$ 230,192	\$ 118,166	\$ 94,371	\$ 128	\$ 1,000,170	\$ —	\$ 339	\$ 1,000,509	
	At September 30, 2015									
	(Thousands)									
Segment Assets	\$ 2,439,801	\$ 1,590,524	\$ 444,358	\$ 1,934,731	\$ 90,676	\$ 6,500,090	\$ 77,350	\$ (12,501)	\$ 6,564,939	
	Year Ended September 30, 2014									
	Exploration and Production	Pipeline and Storage	Gathering	Utility	Energy Marketing	Total Reportable Segments	All Other	Corporate and Intersegment Eliminations	Total Consolidated	
	(Thousands)									
Revenue from External Customers(1)	\$ 804,096	\$ 200,664	\$ 673	\$ 831,156	\$ 271,993	\$ 2,108,582	\$ 3,532	\$ 967	\$ 2,113,081	
Intersegment Revenues	\$ —	\$ 83,744	\$ 69,937	\$ 18,462	\$ 1,159	\$ 173,302	\$ —	\$ (173,302)	\$ —	
Interest Income	\$ 1,909	\$ 284	\$ 120	\$ 3,010	\$ 173	\$ 5,496	\$ 106	\$ (1,432)	\$ 4,170	
Interest Expense	\$ 42,232	\$ 26,428	\$ 1,726	\$ 27,693	\$ 31	\$ 98,110	\$ 6	\$ (3,839)	\$ 94,277	
Depreciation, Depletion and Amortization	\$ 296,210	\$ 36,642	\$ 6,116	\$ 43,594	\$ 197	\$ 382,759	\$ 344	\$ 678	\$ 383,781	
Income Tax Expense (Benefit)	\$ 81,370	\$ 47,100	\$ 23,636	\$ 33,918	\$ 3,761	\$ 189,785	\$ 822	\$ (993)	\$ 189,614	
Segment Profit: Net Income (Loss)	\$ 121,569	\$ 77,559	\$ 32,709	\$ 64,059	\$ 6,631	\$ 302,527	\$ 1,160	\$ (4,274)	\$ 299,413	
Expenditures for Additions to Long-Lived Assets	\$ 602,705	\$ 139,821	\$ 137,799	\$ 88,810	\$ 264	\$ 969,399	\$ 274	\$ 234	\$ 969,907	
	At September 30, 2014									
	(Thousands)									
Segment Assets	\$ 3,081,885	\$ 1,364,659	\$ 325,388	\$ 1,841,891	\$ 77,152	\$ 6,690,975	\$ 89,760	\$ (93,018)	\$ 6,687,717	

(1) All Revenue from External Customers originated in the United States.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Geographic Information

	At September 30		
	2016	2015	2014
	(Thousands)		
Long-Lived Assets:			
United States	\$ 5,223,356	\$ 6,189,138	\$ 6,350,708

Note K — Quarterly Financial Data (unaudited)

In the opinion of management, the following quarterly information includes all adjustments necessary for a fair statement of the results of operations for such periods. Per common share amounts are calculated using the weighted average number of shares outstanding during each quarter. The total of all quarters may differ from the per common share amounts shown on the Consolidated Statements of Income. Those per common share amounts are based on the weighted average number of shares outstanding for the entire fiscal year. Because of the seasonal nature of the Company's heating business, there are substantial variations in operations reported on a quarterly basis.

Quarter Ended	Operating Revenues	Operating Income (Loss)	Net Income(Loss) Available for Common Stock	Earnings (Loss) per Common Share	
				Basic	Diluted
				(Thousands, except per common share amounts)	
<u>2016</u>					
9/30/2016	\$ 292,472	\$ 81,244	\$ 37,553 (1)	\$ 0.44	\$ 0.44
6/30/2016	\$ 335,617	\$ 45,162	\$ 8,286 (2)	\$ 0.10	\$ 0.10
3/31/2016	\$ 449,132	\$ (237,000)	\$ (147,688) (3)	\$ (1.74)	\$ (1.74)
12/31/2015	\$ 375,195	\$ (305,924)	\$ (189,109) (4)	\$ (2.23)	\$ (2.23)
<u>2015</u>					
9/30/2015	\$ 301,062	\$ (326,731)	\$ (187,703) (5)	\$ (2.22)	\$ (2.22)
6/30/2015	\$ 339,815	\$ (489,214)	\$ (293,134) (6)	\$ (3.47)	\$ (3.44)
3/31/2015	\$ 596,127	\$ 44,331	\$ 16,669 (7)	\$ 0.20	\$ 0.20
12/31/2014	\$ 523,909	\$ 160,561	\$ 84,741	\$ 1.01	\$ 1.00

- (1) Includes a non-cash \$32.7 million impairment charge (\$19.0 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.
- (2) Includes a non-cash \$82.7 million impairment charge (\$47.9 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.
- (3) Includes a non-cash \$397.4 million impairment charge (\$230.5 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.
- (4) Includes a non-cash \$ 435.5 million impairment charge (\$252.6 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.
- (5) Includes a non-cash \$417.2 million impairment charge (\$240.9 million after tax) associated with the Exploration and Production segment's oil and gas producing properties and a \$8.0 million reversal of stock-based compensation expense (\$4.7 million after tax) related to performance based restricted stock units.
- (6) Includes a non-cash \$588.7 million impairment charge (\$339.8 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.
- (7) Includes a non-cash \$120.3 million impairment charge (\$69.5 million after tax) associated with the Exploration and Production segment's oil and gas producing properties.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Note L — Market for Common Stock and Related Shareholder Matters (unaudited)

At September 30, 2016, there were 11,751 registered shareholders of Company common stock. The common stock is listed and traded on the New York Stock Exchange. Information related to restrictions on the payment of dividends can be found in Note E — Capitalization and Short-Term Borrowings. The quarterly price ranges (based on intra-day prices) and quarterly dividends declared for the fiscal years ended September 30, 2016 and 2015, are shown below:

Quarter Ended	Price Range		Dividends Declared
	High	Low	
2016			
9/30/2016	\$ 59.62	\$ 53.81	\$ 0.405
6/30/2016	\$ 57.06	\$ 47.49	\$ 0.405
3/31/2016	\$ 51.53	\$ 39.79	\$ 0.395
12/31/2015	\$ 56.64	\$ 37.03	\$ 0.395
2015			
9/30/2015	\$ 59.39	\$ 48.61	\$ 0.395
6/30/2015	\$ 66.07	\$ 58.83	\$ 0.395
3/31/2015	\$ 70.19	\$ 57.73	\$ 0.385
12/31/2014	\$ 72.21	\$ 64.31	\$ 0.385

Note M — Supplementary Information for Oil and Gas Producing Activities (unaudited, except for Capitalized Costs Relating to Oil and Gas Producing Activities)

The Company follows authoritative guidance related to oil and gas exploration and production activities that aligns the reserve estimation and disclosure requirements with the requirements of the SEC Modernization of Oil and Gas Reporting rule, which the Company also follows. The SEC rules require companies to value their year-end reserves using an unweighted arithmetic average of the first day of the month oil and gas prices for each month within the twelve month period prior to the end of the reporting period.

The following supplementary information is presented in accordance with the authoritative guidance regarding disclosures about oil and gas producing activities and related SEC accounting rules. All monetary amounts are expressed in U.S. dollars.

Capitalized Costs Relating to Oil and Gas Producing Activities

	At September 30	
	2016	2015
	(Thousands)	
Proved Properties(1)	\$ 4,554,929	\$ 4,473,721
Unproved Properties	135,285	176,327
	4,690,214	4,650,048
Less — Accumulated Depreciation, Depletion and Amortization	3,657,239	2,572,348
	<u>\$ 1,032,975</u>	<u>\$ 2,077,700</u>

(1) Includes asset retirement costs of \$63.6 million and \$113.3 million at September 30, 2016 and 2015, respectively.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Costs related to unproved properties are excluded from amortization until proved reserves are found or it is determined that the unproved properties are impaired. All costs related to unproved properties are reviewed quarterly to determine if impairment has occurred. The amount of any impairment is transferred to the pool of capitalized costs being amortized. Although the timing of the ultimate evaluation or disposition of the unproved properties cannot be determined, the Company expects the majority of its acquisition costs associated with unproved properties to be transferred into the amortization base by 2021. It expects the majority of its development and exploration costs associated with unproved properties to be transferred into the amortization base by 2017. Following is a summary of costs excluded from amortization at September 30, 2016:

	Total as of September 30, 2016	Year Costs Incurred			
		2016	2015	2014	Prior
		(Thousands)			
Acquisition Costs	\$ 55,193	\$ —	\$ —	\$ 7,057	\$ 48,136
Development Costs	52,780	40,597	7,911	1,436	2,836
Exploration Costs	26,822	17,340	9,482	—	—
Capitalized Interest	490	339	151	—	—
	<u>\$ 135,285</u>	<u>\$ 58,276</u>	<u>\$ 17,544</u>	<u>\$ 8,493</u>	<u>\$ 50,972</u>

Costs Incurred in Oil and Gas Property Acquisition, Exploration and Development Activities

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
United States			
Property Acquisition Costs:			
Proved	\$ 1,342	\$ 1,767	\$ 18,213
Unproved	2,165	19,998	7,884
Exploration Costs(1)	27,561	53,222	71,850
Development Costs(2)	219,386	454,605	490,164
Asset Retirement Costs	(49,653)	37,595	(4,946)
	\$ 200,801	\$ 567,187	\$ 583,165

(1) Amounts for 2016, 2015 and 2014 include capitalized interest of \$0.3 million, \$0.4 million and \$0.7 million, respectively.

(2) Amounts for 2016, 2015 and 2014 include capitalized interest of \$0.2 million, \$0.5 million and \$0.7 million, respectively.

For the years ended September 30, 2016, 2015 and 2014, the Company spent \$92.8 million, \$161.8 million and \$179.9 million, respectively, developing proved undeveloped reserves.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Results of Operations for Producing Activities

	Year Ended September 30		
	2016	2015	2014
United States	(Thousands, except per Mcfe amounts)		
Operating Revenues:			
Natural Gas (includes revenues from sales to affiliates of \$2 (2016) and \$1 (2015 and 2014) and transfers to operations of \$1,765, \$1,946 and \$2,145, respectively)	\$ 282,619	\$ 350,673	\$ 515,080
Oil, Condensate and Other Liquids	103,533	156,048	298,179
Total Operating Revenues(1)	386,152	506,721	813,259
Production/Lifting Costs	153,914	167,800	165,534
Franchise/Ad Valorem Taxes	13,794	20,167	20,765
Purchased Emission Allowance Expense	700	3,089	—
Accretion Expense	6,663	6,186	6,192
Depreciation, Depletion and Amortization (\$0.85, \$1.49 and \$1.82 per Mcfe of production)	136,579	234,480	291,651
Impairment of Oil and Gas Producing Properties	948,307	1,126,257	—
Income Tax Expense (Benefit)	(368,940)	(444,393)	140,484
Results of Operations for Producing Activities (excluding corporate overheads and interest charges)	\$ (504,865)	\$ (606,865)	\$ 188,633

(1) Exclusive of hedging gains and losses. See further discussion in Note G — Financial Instruments.

Reserve Quantity Information

The Company's proved oil and gas reserve estimates are prepared by the Company's reservoir engineers who meet the qualifications of Reserve Estimator per the "Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserve Information" promulgated by the Society of Petroleum Engineers as of February 19, 2007. The Company maintains comprehensive internal reserve guidelines and a continuing education program designed to keep its staff up to date with current SEC regulations and guidance.

The Company's Vice President of Reservoir Engineering is the primary technical person responsible for overseeing the Company's reserve estimation process and engaging and overseeing the third party reserve audit. His qualifications include a Bachelor of Science Degree in Petroleum Engineering and over 30 years of Petroleum Engineering experience with both major and independent oil and gas companies. He has maintained oversight of the Company's reserve estimation process for the past thirteen years. He is a member of the Society of Petroleum Evaluation Engineers and a Registered Professional Engineer in the State of Texas.

The Company maintains a system of internal controls over the reserve estimation process. Management reviews the price, heat content, lease operating cost and future investment assumptions used in the economic model to determine the reserves. The Vice President of Reservoir Engineering reviews and approves all new reserve assignments and significant reserve revisions. Access to the Reserve database is restricted. Significant changes to the reserve report are reviewed by senior management on a quarterly basis. Periodically, the Company's internal audit department assesses the design of these controls and performs testing to determine the effectiveness of such controls.

All of the Company's reserve estimates are audited annually by Netherland, Sewell and Associates, Inc. (NSAI). Since 1961, NSAI has evaluated gas and oil properties and independently certified petroleum reserve quantities in the United States and internationally under the Texas Board of Professional Engineers Registration No. F-002699. The primary technical persons (employed by NSAI) that are responsible for leading the audit include

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

a professional engineer registered with the State of Texas (consulting at NSAI since 2004 and with over 5 years of prior industry experience in petroleum engineering) and a professional geoscientist registered in the State of Texas (consulting at NSAI since 2008 and with over 11 years of prior industry experience in petroleum geosciences). NSAI was satisfied with the methods and procedures used by the Company to prepare its reserve estimates at September 30, 2016 and did not identify any problems which would cause it to take exception to those estimates.

The reliable technologies that were utilized in estimating the reserves include wire line open-hole log data, performance data, log cross sections, core data, 2D and 3D seismic data and statistical analysis. The statistical method utilized production performance from both the Company's and competitors' wells. Geophysical data includes data from the Company's wells, published documents and state data-sites, and 2D and 3D seismic data. These were used to confirm continuity of the formation.

	Gas MMcf		
	U. S.		
	Appalachian Region	West Coast Region	Total Company
Proved Developed and Undeveloped Reserves:			
September 30, 2013	1,238,738	60,777	1,299,515
Extensions and Discoveries	446,821 (1)	—	446,821
Revisions of Previous Estimates	43,690	1,358	45,048
Production	(139,097) (2)	(3,210)	(142,307)
Purchases of Minerals in Place	33,986	—	33,986
Sale of Minerals in Place	(76)	(103)	(179)
September 30, 2014	1,624,062	58,822	1,682,884
Extensions and Discoveries	633,360 (1)	—	633,360
Revisions of Previous Estimates	(28,124)	(6,317)	(34,441)
Production	(136,404) (2)	(3,159)	(139,563)
Sale of Minerals in Place	(112)	—	(112)
September 30, 2015	2,092,782	49,346	2,142,128
Extensions and Discoveries	185,347 (1)	—	185,347
Revisions of Previous Estimates	(245,029)	(3,132)	(248,161)
Production	(140,457) (2)	(3,090)	(143,547)
Sale of Minerals in Place	(261,192)	—	(261,192)
September 30, 2016	1,631,451	43,124	1,674,575
Proved Developed Reserves:			
September 30, 2013	807,055	59,862	866,917
September 30, 2014	1,119,901	57,907	1,177,808
September 30, 2015	1,267,498	49,346	1,316,844
September 30, 2016	1,089,492	43,124	1,132,616
Proved Undeveloped Reserves:			
September 30, 2013	431,683	915	432,598
September 30, 2014	504,161	915	505,076
September 30, 2015	825,284	—	825,284
September 30, 2016	541,959	—	541,959

(1) Extensions and discoveries include 442 Bcf (during 2014), 598 Bcf (during 2015) and 179 Bcf (during 2016), of Marcellus Shale gas in the Appalachian Region.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

- (2) Production includes 131,590 MMcf (during 2014), 130,291 MMcf (during 2015) and 135,598 MMcf (during 2016), from Marcellus Shale fields (which exceed 15% of total reserves).

	Oil Mbbl		
	U. S.		
	Appalachian Region	West Coast Region	Total Company
Proved Developed and Undeveloped Reserves:			
September 30, 2013	283	41,315	41,598
Extensions and Discoveries	18	1,521	1,539
Revisions of Previous Estimates	(17)	(1,677)	(1,694)
Production	(31)	(3,005)	(3,036)
Purchases of Minerals in Place	—	83	83
Sales of Minerals in Place	—	(13)	(13)
September 30, 2014	253	38,224	38,477
Extensions and Discoveries	—	533	533
Revisions of Previous Estimates	(3)	(2,251)	(2,254)
Production	(30)	(3,004)	(3,034)
September 30, 2015	220	33,502	33,722
Extensions and Discoveries	—	530	530
Revisions of Previous Estimates	(46)	(2,201)	(2,247)
Production	(28)	(2,895)	(2,923)
Sales of Minerals in Place	(73)	—	(73)
September 30, 2016	73	28,936	29,009
Proved Developed Reserves:			
September 30, 2013	283	38,082	38,365
September 30, 2014	253	37,002	37,255
September 30, 2015	220	33,150	33,370
September 30, 2016	73	28,698	28,771
Proved Undeveloped Reserves:			
September 30, 2013	—	3,233	3,233
September 30, 2014	—	1,222	1,222
September 30, 2015	—	352	352
September 30, 2016	—	238	238

The Company's proved undeveloped (PUD) reserves decreased from 827 Bcfe at September 30, 2015 to 543 Bcfe at September 30, 2016. PUD reserves in the Marcellus Shale decreased from 825 Bcfe at September 30, 2015 to 542 Bcfe at September 30, 2016. The Company's total PUD reserves were 29% of total proved reserves at September 30, 2016, down from 35% of total proved reserves at September 30, 2015.

The Company's PUD reserves increased from 512 Bcfe at September 30, 2014 to 827 Bcfe at September 30, 2015. PUD reserves in the Marcellus Shale increased from 504 Bcfe at September 30, 2014 to 825 Bcfe at September 30, 2015. The Company's total PUD reserves were 35% of total proved reserves at September 30, 2015, up from 27% of total proved reserves at September 30, 2014.

The decrease in PUD reserves in 2016 of 284 Bcfe is a result of 102 Bcfe in new PUD reserve additions (103 Bcfe from the Marcellus Shale), offset by sales of 166 Bcfe associated with a joint development agreement (JDA) that Seneca entered into in December 2015, 14 Bcfe in downward revisions to remaining PUD reserves,

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

110 Bcfe in PUD conversions to developed reserves and 96 Bcfe in PUD reserves removed. The PUD reserves removed were primarily in the Marcellus Shale (74 Bcfe) and were due to several factors including schedule changes, lower performance expectations and lower natural gas pricing. Geneseo Shale PUD reserves of 23 Bcfe were removed solely due to lower gas pricing as they were uneconomic at trailing twelve month pricing.

The increase in PUD reserves in 2015 of 315 Bcfe was a result of 496 Bcfe in new PUD reserve additions (494 Bcfe from the Marcellus Shale), 26 Bcfe in upward revisions to remaining PUD reserves, offset by 168 Bcfe in PUD conversions to developed reserves and 39 Bcfe in PUD reserves removed. The PUD reserves removed were primarily in the Marcellus Shale (37 Bcfe) in Tioga County, where the Company had no near term plans to develop these reserves as it employed capital elsewhere. An additional 2 Bcfe (279 Mbbl) of PUD reserves were removed at the Midway Sunset field in the Tulare reservoir as the Company had no near term plans to develop these reserves as it employed capital elsewhere.

The Company invested \$93 million (includes \$36 million of drilling carry costs for a JDA partner that were later reimbursed) during the year ended September 30, 2016 to convert 92 Bcfe (110 Bcfe including revisions) of PUD reserves to developed reserves. This represents 11% of the net PUD reserves recorded at September 30, 2015. In 2016, the majority of Seneca's planned PUD reserves development was funded by a JDA partner, which reduced Seneca's working interest, as discussed in Note A — Summary of Significant Accounting Policies under the heading "Property, Plant and Equipment." In fiscal 2016, the Company developed 31 (or 28%) of its gross Marcellus Shale wells that were recorded at September 30, 2015. The majority of these wells were included in the JDA. Including the impact of JDA sales, the Company developed 207 Bcfe (or 25%) of its net PUD reserves recorded at September 30, 2015. In addition, as stated above, the sales associated with the JDA further decreased PUD reserves. The Company anticipates further PUD reserves sales associated with the JDA in fiscal 2017 as it develops the last group of wells included in the JDA.

The Company invested \$162 million during the year ended September 30, 2015 to convert 168 Bcfe (184 Bcfe including revisions) of September 30, 2014 PUD reserves to proved developed reserves. This represented 33% of the PUD reserves booked at September 30, 2014.

In 2017, the Company estimates that it will invest approximately \$124 million to develop its PUD reserves. The Company is committed to developing its PUD reserves within five years as required by the SEC's final rule on Modernization of Oil and Gas Reporting. Since that rule, and over the last five years, the Company developed 33% of its beginning year PUD reserves in fiscal 2012, 39% of its beginning year PUD reserves in fiscal 2013, 51% of its beginning year PUD reserves in fiscal 2014, 33% of its beginning year PUD reserves in fiscal 2015 and 25% of its beginning year PUD reserves in fiscal 2016.

At September 30, 2016, the Company does not have a material concentration of proved undeveloped reserves that have been on the books for more than five years at the corporate level, country level or field level. All of the Company's proved reserves are in the United States.

Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves

The Company cautions that the following presentation of the standardized measure of discounted future net cash flows is intended to be neither a measure of the fair market value of the Company's oil and gas properties, nor an estimate of the present value of actual future cash flows to be obtained as a result of their development and production. It is based upon subjective estimates of proved reserves only and attributes no value to categories of reserves other than proved reserves, such as probable or possible reserves, or to unproved acreage. Furthermore, in accordance with the SEC's final rule on Modernization of Oil and Gas Reporting, it is based on the unweighted arithmetic average of the first day of the month oil and gas prices for each month within the twelve-month period prior to the end of the reporting period and costs adjusted only for existing contractual changes. It assumes an arbitrary discount rate of 10% . Thus, it gives no effect to future price and cost changes certain to occur under widely fluctuating political and economic conditions.

NATIONAL FUEL GAS COMPANY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The standardized measure is intended instead to provide a means for comparing the value of the Company's proved reserves at a given time with those of other oil- and gas-producing companies than is provided by a simple comparison of raw proved reserve quantities.

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
United States			
Future Cash Inflows	\$ 3,768,463	\$ 6,916,775	\$ 10,001,545
Less:			
Future Production Costs	1,994,916	2,854,142	2,795,657
Future Development Costs	375,152	761,922	790,033
Future Income Tax Expense at Applicable Statutory Rate	303,397	1,117,433	2,434,370
Future Net Cash Flows	1,094,998	2,183,278	3,981,485
Less:			
10% Annual Discount for Estimated Timing of Cash Flows	452,470	860,244	1,914,607
Standardized Measure of Discounted Future Net Cash Flows	\$ 642,528	\$ 1,323,034	\$ 2,066,878

The principal sources of change in the standardized measure of discounted future net cash flows were as follows:

	Year Ended September 30		
	2016	2015	2014
	(Thousands)		
United States			
Standardized Measure of Discounted Future			
Net Cash Flows at Beginning of Year	\$ 1,323,034	\$ 2,066,878	\$ 1,966,366
Sales, Net of Production Costs	(218,444)	(318,753)	(626,960)
Net Changes in Prices, Net of Production Costs	(1,066,593)	(1,752,843)	(38,723)
Extensions and Discoveries	47,742	266,159	381,008
Changes in Estimated Future Development Costs	143,752	164,510	68,731
Purchases of Minerals in Place	—	—	34,705
Sales of Minerals in Place	(95,849)	(1)	(691)
Previously Estimated Development Costs Incurred	92,840	161,833	179,502
Net Change in Income Taxes at Applicable Statutory Rate	387,739	545,442	(231,807)
Revisions of Previous Quantity Estimates	6,202	(16,573)	55,184
Accretion of Discount and Other	22,105	206,382	279,563
Standardized Measure of Discounted Future Net Cash Flows at End of Year	\$ 642,528	\$ 1,323,034	\$ 2,066,878

Schedule II — Valuation and Qualifying Accounts

Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Additions Charged to Other Accounts(1)	Deductions (2)	Balance at End of Period
Year Ended September 30, 2016					
Allowance for Uncollectible Accounts	\$ 29,029	\$ 6,819	\$ 1,521	\$ 16,260	\$ 21,109
Year Ended September 30, 2015					
Allowance for Uncollectible Accounts	\$ 31,811	\$ 9,316	\$ 2,585	\$ 14,683	\$ 29,029
Year Ended September 30, 2014					
Allowance for Uncollectible Accounts	\$ 27,144	\$ 10,856	\$ 3,241	\$ 9,430	\$ 31,811

(1) Represents the discount on accounts receivable purchased in accordance with the Utility segment's 2005 New York rate agreement.

(2) Amounts represent net accounts receivable written-off.

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

None.

Item 9A *Controls and Procedures*

Evaluation of Disclosure Controls and Procedures

The term "disclosure controls and procedures" is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. These rules refer to the controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. The Company's management, including the Chief Executive Officer and Principal Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based upon that evaluation, the Company's Chief Executive Officer and Principal Financial Officer concluded that the Company's disclosure controls and procedures were effective as of September 30, 2016.

Management's Annual Report on Internal Control over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements for external purposes in accordance with GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of September 30, 2016. In making this assessment, management used the framework and criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework*, published in 2013. Based on this assessment, management concluded that the Company maintained effective internal control over financial reporting as of September 30, 2016.

PricewaterhouseCoopers LLP, the independent registered public accounting firm that audited the Company's consolidated financial statements included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting as of September 30, 2016. The report appears in Part II, Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting that occurred during the quarter ended September 30, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B *Other Information*

None.

PART III

Item 10 *Directors, Executive Officers and Corporate Governance*

The information concerning directors will be set forth in the definitive Proxy Statement under the headings entitled "Nominees for Election as Directors for Three-Year Terms to Expire in 2020," "Directors Whose Terms Expire in 2019," "Directors Whose Terms Expire in 2018," and "Section 16(a) Beneficial Ownership Reporting Compliance" and is incorporated herein by reference. The information concerning corporate governance will be set forth in the definitive Proxy Statement under the heading entitled "Meetings of the Board of Directors and Standing Committees" and is incorporated herein by reference. Information concerning the Company's executive officers can be found in Part I, Item 1, of this report.

The Company has adopted a Code of Business Conduct and Ethics that applies to the Company's directors, officers and employees and has posted such Code of Business Conduct and Ethics on the Company's website, www.nationalfuelgas.com, together with certain other corporate governance documents. Copies of the Company's Code of Business Conduct and Ethics, charters of important committees, and Corporate Governance Guidelines will be made available free of charge upon written request to Investor Relations, National Fuel Gas Company, 6363 Main Street, Williamsville, New York 14221.

The Company intends to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or a waiver from, a provision of its code of ethics that applies to the Company's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, and that relates to any element of the code of ethics definition enumerated in paragraph (b) of Item 406 of the SEC's Regulation S-K, by posting such information on its website, www.nationalfuelgas.com.

Item 11 *Executive Compensation*

The information concerning executive compensation will be set forth in the definitive Proxy Statement under the headings "Executive Compensation" and "Compensation Committee Interlocks and Insider Participation" and, excepting the "Report of the Compensation Committee," is incorporated herein by reference.

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

Equity Compensation Plan Information

The equity compensation plan information will be set forth in the definitive Proxy Statement under the heading "Equity Compensation Plan Information" and is incorporated herein by reference.

Security Ownership and Changes in Control

(a) Security Ownership of Certain Beneficial Owners

The information concerning security ownership of certain beneficial owners will be set forth in the definitive Proxy Statement under the heading "Security Ownership of Certain Beneficial Owners and Management" and is incorporated herein by reference.

(b) Security Ownership of Management

The information concerning security ownership of management will be set forth in the definitive Proxy Statement under the heading “Security Ownership of Certain Beneficial Owners and Management” and is incorporated herein by reference.

(c) Changes in Control

None.

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

The information regarding certain relationships and related transactions will be set forth in the definitive Proxy Statement under the headings “Compensation Committee Interlocks and Insider Participation” and “Related Person Transactions” and is incorporated herein by reference. The information regarding director independence is set forth in the definitive Proxy Statement under the heading “Director Independence” and is incorporated herein by reference.

Item 14 *Principal Accountant Fees and Services*

The information concerning principal accountant fees and services will be set forth in the definitive Proxy Statement under the heading “Audit Fees” and is incorporated herein by reference.

PART IV

Item 15 *Exhibits and Financial Statement Schedules*

(a)1. Financial Statements

Financial statements filed as part of this report are listed in the index included in Item 8 of this Form 10-K, and reference is made thereto.

(a)2. Financial Statement Schedules

Financial statement schedules filed as part of this report are listed in the index included in Item 8 of this Form 10-K, and reference is made thereto.

(a)3. Exhibits

All documents referenced below were filed pursuant to the Securities Exchange Act of 1934 by National Fuel Gas Company (File No. 1-3880), unless otherwise noted.

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
3(i)	Articles of Incorporation:
•	Restated Certificate of Incorporation of National Fuel Gas Company dated September 21, 1998; Certificate of Amendment of Restated Certificate of Incorporation dated March 14, 2005 (Exhibit 3.1, Form 10-K for fiscal year ended September 30, 2013)
3(ii)	By-Laws:
•	National Fuel Gas Company By-Laws as amended March 10, 2016 (Exhibit 3.1, Form 8-K dated March 16, 2016)
4	Instruments Defining the Rights of Security Holders, Including Indentures:

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
	• Indenture, dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 2(b) in File No. 2-51796) • Third Supplemental Indenture, dated as of December 1, 1982, to Indenture dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 4(a)(4) in File No. 33-49401) • Eleventh Supplemental Indenture, dated as of May 1, 1992, to Indenture dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 4(b), Form 8-K dated February 14, 1992) • Twelfth Supplemental Indenture, dated as of June 1, 1992, to Indenture dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 4(c), Form 8-K dated June 18, 1992) • Thirteenth Supplemental Indenture, dated as of March 1, 1993, to Indenture dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 4(a)(14) in File No. 33-49401) • Fourteenth Supplemental Indenture, dated as of July 1, 1993, to Indenture dated as of October 15, 1974, between the Company and The Bank of New York Mellon (formerly Irving Trust Company) (Exhibit 4.1, Form 10-K for fiscal year ended September 30, 1993) • Indenture dated as of October 1, 1999, between the Company and The Bank of New York Mellon (formerly The Bank of New York) (Exhibit 4.1, Form 10-K for fiscal year ended September 30, 1999) • Officer's Certificate establishing 6.50% Notes due 2018, dated April 11, 2008 (Exhibit 4.1, Form 10-Q for the quarterly period ended June 30, 2008) • Officer's Certificate establishing 8.75% Notes due 2019, dated April 6, 2009 (Exhibit 4.4, Form 8-K dated April 6, 2009) • Officer's Certificate establishing 4.90% Notes due 2021, dated December 1, 2011 (Exhibit 4.4, Form 8-K dated December 1, 2011) • Officers Certificate establishing 3.75% Notes due 2023, dated February 15, 2023 (Exhibit 4.1.1, Form 8-K dated February 15, 2013) • Amended and Restated Rights Agreement, dated as of December 4, 2008, between the Company and The Bank of New York Mellon (formerly The Bank of New York), as rights agent (Exhibit 4.1, Form 8-K dated December 4, 2008) • Letter of Appointment of Wells Fargo Bank, National Association, as Successor Rights Agent, dated July 18, 2012 (Exhibit 4.1, Form 10-K for fiscal year ended September 30, 2012)
10	Material Contracts:
10.1	Third Amended and Restated Credit Agreement, dated as of September 9, 2016, among the Company, the Lenders Party Thereto, and JP Morgan Chase Bank, National Association, as Administrative Agent • Second Amended and Restated Credit Agreement, dated as of September 30, 2015, among the Company, the Lenders Party Thereto, and JP Morgan Chase Bank, National Association, as Administrative Agent (Exhibit 10.1, Form 10-K for the fiscal year ended September 30, 2015) • Amended and Restated Credit Agreement, dated as of January 6, 2012, among the Company, the Lenders Party Thereto, and JPMorgan Chase Bank, National Association, as Administrative Agent (Exhibit 10.1, Form 10-Q for the quarterly period ended March 31, 2012) • Form of Indemnification Agreement, dated September 2006, between the Company and each Director (Exhibit 10.1, Form 8-K dated September 18, 2006)

**Exhibit
Number**

**Description of
Exhibits**

- Resolutions adopted by the National Fuel Gas Company Board of Directors on February 21, 2008 regarding director stock ownership guidelines (Exhibit 10.5, Form 10-Q for the quarterly period ended March 31, 2008)
- Management Contracts and Compensatory Plans and Arrangements:
- Amendment to the Director Services Agreement between the Company and David F. Smith, dated March 12, 2015 (Exhibit 10.1, Form 8-K dated March 16, 2015)
 - Director Services Agreement between the Company and David F. Smith, dated March 13, 2014 (Exhibit 10.1, Form 8-K dated March 18, 2014)
 - Form of Amended and Restated Employment Continuation and Noncompetition Agreement among the Company, a subsidiary of the Company and each of David P. Bauer, Karen M. Camiolo, Carl M. Carlotti, Anna Marie Cellino, Paula M. Ciprich, Donna L. DeCarolus, John R. Pustulka, James D. Ramsdell, David F. Smith and Ronald J. Tanski (Exhibit 10.1, Form 10-K for the fiscal year ended September 30, 2008)
 - Form of Amended and Restated Employment Continuation and Noncompetition Agreement among the Company, Seneca Resources Corporation and Matthew D. Cabell (Exhibit 10.2, Form 10-K for the fiscal year ended September 30, 2008)
 - Letter Agreement between the Company and Matthew D. Cabell, dated November 17, 2006 (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2006)
 - Description of September 17, 2009 restricted stock award (Exhibit 10.1, Form 10-K for fiscal year ended September 30, 2009)
 - Description of post-employment medical and prescription drug benefits (Exhibit 10.2, Form 10-K for fiscal year ended September 30, 2009)
 - National Fuel Gas Company 1997 Award and Option Plan, as amended and restated as of July 23, 2007 (Exhibit 10.4, Form 10-Q for the quarterly period ended March 31, 2008)
 - Form of Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.1, Form 8-K dated March 28, 2005)
 - Form of Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.1, Form 8-K dated May 16, 2006)
 - Form of Restricted Stock Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2006)
 - Form of Stock Option Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2006)
 - Form of Stock Appreciation Right Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended March 31, 2008)
 - Form of Stock Appreciation Right Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2008)
 - Form of Stock Appreciation Right Award Notice under National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2011)
 - Form of Restricted Stock Award Notice under the National Fuel Gas Company 1997 Award and Option Plan (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2010)
 - Administrative Rules with Respect to At Risk Awards under the 1997 Award and Option Plan amended and restated as of September 8, 2005 (Exhibit 10.4, Form 10-K for fiscal year ended September 30, 2005)

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
•	National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.2, Form 8-K dated March 16, 2015)
•	Form of Stock Appreciation Right Award Notice under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.1, Form 10-Q for the quarterly period ended March 31, 2010)
•	Form of Stock Appreciation Right Award Notice under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.4, Form 10-Q for the quarterly period ended December 31, 2010)
•	Form of Restricted Stock Unit Award Notice under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2012)
•	Amended and Restated National Fuel Gas Company 2007 Annual At Risk Compensation Incentive Program (Exhibit 10.3, Form 10-K for the fiscal year ended September 30, 2008)
•	Description of performance goals under the Amended and Restated National Fuel Gas Company 2007 Annual At Risk Compensation Incentive Program and the National Fuel Gas Company Executive Annual Cash Incentive Program (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2011)
•	National Fuel Gas Company 2012 Annual At Risk Compensation Incentive Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended March 31, 2012)
•	Description of performance goals under the Amended and Restated National Fuel Gas Company 2012 Annual At Risk Compensation Incentive Program and the National Fuel Gas Company Executive Annual Cash Incentive Program (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2012)
•	National Fuel Gas Company Executive Annual Cash Incentive Program (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2009)
•	Administrative Rules of the Compensation Committee of the Board of Directors of National Fuel Gas Company, as amended and restated effective June 9, 2016 (Exhibit 10.1, Form 10-Q for the quarterly period ended June 30, 2016)
•	National Fuel Gas Company Deferred Compensation Plan, as amended and restated through May 1, 1994 (Exhibit 10.7, Form 10-K for fiscal year ended September 30, 1994)
•	Amendment to National Fuel Gas Company Deferred Compensation Plan, dated September 27, 1995 (Exhibit 10.9, Form 10-K for fiscal year ended September 30, 1995)
•	Amendment to National Fuel Gas Company Deferred Compensation Plan, dated September 19, 1996 (Exhibit 10.10, Form 10-K for fiscal year ended September 30, 1996)
•	National Fuel Gas Company Deferred Compensation Plan, as amended and restated through March 20, 1997 (Exhibit 10.3, Form 10-K for fiscal year ended September 30, 1997)
•	Amendment to National Fuel Gas Company Deferred Compensation Plan, dated June 16, 1997 (Exhibit 10.4, Form 10-K for fiscal year ended September 30, 1997)
•	Amendment No. 2 to the National Fuel Gas Company Deferred Compensation Plan, dated March 13, 1998 (Exhibit 10.1, Form 10-K for fiscal year ended September 30, 1998)
•	Amendment to the National Fuel Gas Company Deferred Compensation Plan, dated February 18, 1999 (Exhibit 10.1, Form 10-Q for the quarterly period ended March 31, 1999)
•	Amendment to National Fuel Gas Company Deferred Compensation Plan, dated June 15, 2001 (Exhibit 10.3, Form 10-K for fiscal year ended September 30, 2001)

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
•	Amendment to the National Fuel Gas Company Deferred Compensation Plan, dated October 21, 2005 (Exhibit 10.5, Form 10-K for fiscal year ended September 30, 2005)
•	Form of Letter Regarding Deferred Compensation Plan and Internal Revenue Code Section 409A, dated July 12, 2005 (Exhibit 10.6, Form 10-K for fiscal year ended September 30, 2005)
•	National Fuel Gas Company Tophat Plan, effective March 20, 1997 (Exhibit 10, Form 10-Q for the quarterly period ended June 30, 1997)
•	Amendment No. 1 to National Fuel Gas Company Tophat Plan, dated April 6, 1998 (Exhibit 10.2, Form 10-K for fiscal year ended September 30, 1998)
•	Amendment No. 2 to National Fuel Gas Company Tophat Plan, dated December 10, 1998 (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 1998)
•	Form of Letter Regarding Tophat Plan and Internal Revenue Code Section 409A, dated July 12, 2005 (Exhibit 10.7, Form 10-K for fiscal year ended September 30, 2005)
•	National Fuel Gas Company Tophat Plan, Amended and Restated December 7, 2005 (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2005)
•	National Fuel Gas Company Tophat Plan, as amended September 20, 2007 (Exhibit 10.3, Form 10-K for the fiscal year ended September 30, 2007)
•	Amended and Restated Split Dollar Insurance and Death Benefit Agreement, dated September 17, 1997 between the Company and Philip C. Ackerman (Exhibit 10.5, Form 10-K for fiscal year ended September 30, 1997)
•	Amendment Number 1 to Amended and Restated Split Dollar Insurance and Death Benefit Agreement by and between the Company and Philip C. Ackerman, dated March 23, 1999 (Exhibit 10.3, Form 10-K for fiscal year ended September 30, 1999)
•	Split Dollar Insurance and Death Benefit Agreement, dated September 15, 1997, between the Company and David F. Smith (Exhibit 10.13, Form 10-K for fiscal year ended September 30, 1999)
•	Amendment Number 1 to Split Dollar Insurance and Death Benefit Agreement by and between the Company and David F. Smith, dated March 29, 1999 (Exhibit 10.14, Form 10-K for fiscal year ended September 30, 1999)
•	Life Insurance Premium Agreement, dated September 17, 2009, between the Company and David F. Smith (Exhibit 10.1, Form 8-K dated September 23, 2009)
•	National Fuel Gas Company Parameters for Executive Life Insurance Plan (Exhibit 10.1, Form 10-K for fiscal year ended September 30, 2004)
•	National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan as amended and restated through November 1, 1995 (Exhibit 10.10, Form 10-K for fiscal year ended September 30, 1995)
•	Amendments to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, dated September 18, 1997 (Exhibit 10.9, Form 10-K for fiscal year ended September 30, 1997)
•	Amendments to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, dated December 10, 1998 (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 1998)
•	Amendments to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, effective September 16, 1999 (Exhibit 10.15, Form 10-K for fiscal year ended September 30, 1999)

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
•	Amendment to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, effective September 5, 2001 (Exhibit 10.4, Form 10-K/A for fiscal year ended September 30, 2001)
•	National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, Amended and Restated as of January 1, 2007 (Exhibit 10.5, Form 10-Q for the quarterly period ended December 31, 2006)
•	National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, Amended and Restated as of September 20, 2007 (Exhibit 10.4, Form 10-K for the fiscal year ended September 30, 2007)
•	National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, Amended and Restated as of September 24, 2008 (Exhibit 10.5, Form 10-K for the fiscal year ended September 30, 2008)
•	Amendment to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, dated June 1, 2010 (Exhibit 10.1, Form 10-Q for the quarterly period ended June 30, 2010)
•	Amendment to National Fuel Gas Company and Participating Subsidiaries Executive Retirement Plan, dated August 13, 2015 (Exhibit 10.2, Form 10-K for the fiscal year ended September 30, 2015)
•	National Fuel Gas Company 2012 Performance Incentive Program (Exhibit 10.3, Form 10-Q for the quarterly period ended March 31, 2012)
•	Description of long-term performance incentives for the period October 1, 2011 to September 30, 2014 under the National Fuel Gas Company 2012 Performance Incentive Program (Item 5.02, Form 8-K dated March 13, 2012)
•	National Fuel Gas Company 2009 Non-Employee Director Equity Compensation Plan, as amended and reapproved March 10, 2016 (Exhibit 10.2, Form 10-Q for the quarterly period ended March 31, 2016)
•	Description of assignment of interests in certain life insurance policies (Exhibit 10.1, Form 10-Q for the quarterly period ended June 30, 2006)
•	Description of agreement between the Company and Philip C. Ackerman regarding death benefit (Exhibit 10.3, Form 10-Q for the quarterly period ended June 30, 2006)
•	Agreement, dated September 24, 2006, between the Company and Philip C. Ackerman regarding death benefit (Exhibit 10.1, Form 10-K for the fiscal year ended September 30, 2006)
•	Description of 2014 performance goals under the National Fuel Gas Company 2012 Annual At Risk Compensation Incentive Program (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2013)
•	Form of Award Notice for Return on Capital Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.1, Form 10-Q for the quarterly period ended December 31, 2015)
•	Form of Award Notice for Total Shareholder Return Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2015)
•	Form of Award Notice for Restricted Stock Units under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2015)
•	Form of Award Notice for Return on Capital Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2014)

<u>Exhibit Number</u>	<u>Description of Exhibits</u>
•	Form of Award Notice for Total Shareholder Return Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2014)
•	Form of Award Notice for Return on Capital Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.2, Form 10-Q for the quarterly period ended December 31, 2013)
•	Form of Award Notice for Total Shareholder Return Performance Shares under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.3, Form 10-Q for the quarterly period ended December 31, 2013)
•	Form of Award Notice for Restricted Stock Units under the National Fuel Gas Company 2010 Equity Compensation Plan (Exhibit 10.4, Form 10-Q for the quarterly period ended December 31, 2013)
12	Statements regarding Computation of Ratios: Ratio of Earnings to Fixed Charges for the fiscal years ended September 30, 2012 through 2016
21	Subsidiaries of the Registrant
23	Consents of Experts:
23.1	Consent of Netherland, Sewell & Associates, Inc. regarding Seneca Resources Corporation
23.2	Consent of Independent Registered Public Accounting Firm
31	Rule 13a-14(a)/15d-14(a) Certifications:
31.1	Written statements of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act
31.2	Written statements of Principal Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Exchange Act
32••	Certification furnished pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99	Additional Exhibits:
99.1	Report of Netherland, Sewell & Associates, Inc. regarding Seneca Resources Corporation
99.2	Company Maps
101	Interactive data files submitted pursuant to Regulation S-T: (i) the Consolidated Statements of Income and Earnings Reinvested in the Business for the years ended September 30, 2016, 2015 and 2014, (ii) the Consolidated Statements of Comprehensive Income for the years ended September 30, 2016, 2015 and 2014 (iii) the Consolidated Balance Sheets at September 30, 2016 and September 30, 2015, (iv) the Consolidated Statements of Cash Flows for the years ended September 30, 2016, 2015 and 2014 and (v) the Notes to Consolidated Financial Statements.
•	Incorporated herein by reference as indicated.
	All other exhibits are omitted because they are not applicable or the required information is shown elsewhere in this Annual Report on Form 10-K.
••	In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release Nos. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the material contained in Exhibit 32 is "furnished" and not deemed "filed" with the SEC and is not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933 or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing, except to the extent that the Registrant specifically incorporates it by reference.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

National Fuel Gas Company (Registrant)

By /s/ R. J. Tanski

R. J. Tanski

President and Chief Executive Officer

Date: November 18, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	
<u>/s/ D. F. Smith</u> D. F. Smith	Chairman of the Board and Director	Date: November 18, 2016
<u>/s/ P. C. Ackerman</u> P. C. Ackerman	Director	Date: November 18, 2016
<u>/s/ D. C. Carroll</u> D. C. Carroll	Director	Date: November 18, 2016
<u>/s/ S. E. Ewing</u> S. E. Ewing	Director	Date: November 18, 2016
<u>/s/ J. N. Jagers</u> J. N. Jagers	Director	Date: November 18, 2016
<u>/s/ C. G. Matthews</u> C. G. Matthews	Director	Date: November 18, 2016
<u>/s/ R. Ranich</u> R. Ranich	Director	Date: November 18, 2016
<u>/s/ J. W. Shaw</u> J. W. Shaw	Director	Date: November 18, 2016
<u>/s/ R. J. Tanski</u> R. J. Tanski	President, Chief Executive Officer and Director	Date: November 18, 2016
<u>/s/ D. P. Bauer</u> D. P. Bauer	Treasurer and Principal Financial Officer	Date: November 18, 2016
<u>/s/ K. M. Camiolo</u> K. M. Camiolo	Controller and Principal Accounting Officer	Date: November 18, 2016



THIRD AMENDED AND RESTATED CREDIT AGREEMENT

dated as of

September 9, 2016

among

NATIONAL FUEL GAS COMPANY

The Lenders Party Hereto

And

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION,
As Administrative Agent

BANK OF AMERICA, N.A.,
As Syndication Agent

WELLS FARGO BANK, NATIONAL ASSOCIATION,
As Syndication Agent

HSBC BANK USA, NATIONAL ASSOCIATION,
As Syndication Agent

CANADIAN IMPERIAL BANK OF COMMERCE, NEW YORK BRANCH,
As Documentation Agent

CITIZENS BANK, N.A.,
As Documentation Agent

U.S. BANK NATIONAL ASSOCIATION,
As Documentation Agent

JPMORGAN CHASE BANK, NATIONAL ASSOCIATION,
As Advisor, Co-Bookrunner and Co-Lead Arranger

MERRILL LYNCH, PIERCE, FENNER & SMITH, INCORPORATED,
As Co-Bookrunner and Co-Lead Arranger

WELLS FARGO SECURITIES, LLC,
As Co-Bookrunner and Co-Lead Arranger

Table of Contents

	Page
ARTICLE I Definitions	1
SECTION 1.01. Defined Terms	1
SECTION 1.02. Classification of Loans and Borrowings	18
SECTION 1.03. Terms Generally	18
SECTION 1.04. Accounting Terms; GAAP	18
ARTICLE II The Credits	19
SECTION 2.01. Commitments	19
SECTION 2.02. Loans and Borrowings	19
SECTION 2.03. Requests for Borrowings	20
SECTION 2.04. Swingline Loans	21
SECTION 2.05. Letters of Credit	23
SECTION 2.06. Funding of Borrowings	28
SECTION 2.07. Interest Elections	28
SECTION 2.08. Termination and Reduction of Commitments	29
SECTION 2.09. Increase in Commitments	30
SECTION 2.10. Repayment of Loans; Evidence of Debt	32
SECTION 2.11. Prepayment of Loans	33
SECTION 2.12. Fees	33
SECTION 2.13. Interest	35
SECTION 2.14. Alternate Rate of Interest	36
SECTION 2.15. Increased Costs	36
SECTION 2.16. Break Funding Payments	37
SECTION 2.17. Taxes	38
SECTION 2.18. Payments Generally; Pro Rata Treatment; Sharing of Setoffs	41
SECTION 2.19. Mitigation Obligations; Replacement of Lenders	43
SECTION 2.20. Defaulting Lenders	44
ARTICLE III Representations and Warranties	46
SECTION 3.01. Corporate Existence	46
SECTION 3.02. Financial Condition	47
SECTION 3.03. Litigation	47
SECTION 3.04. No Breach	47
SECTION 3.05. Action	47
SECTION 3.06. Approvals	48
SECTION 3.07. Use of Credit	48

SECTION 3.08.	ERISA	48
SECTION 3.09.	Taxes	48
SECTION 3.10.	Investment Company Act	48
SECTION 3.11.	Environmental Matters	49
SECTION 3.12.	Subsidiaries, Etc.	49
SECTION 3.13.	True and Complete Disclosure	49
SECTION 3.14.	Anti-Corruption Laws and Sanctions	49
SECTION 3.15.	EEA Financial Institutions	50
ARTICLE IV	Conditions	50

	Page
SECTION 4.01. Effective Date	50
SECTION 4.02. Each Credit Event	51
ARTICLE V Covenants of the Borrower	52
SECTION 5.01. Financial Statements, Etc.	52
SECTION 5.02. Existence, Etc.	54
SECTION 5.03. Insurance	54
SECTION 5.04. Prohibition of Fundamental Changes	54
SECTION 5.05. Limitation on Liens	55
SECTION 5.06. Use of Proceeds and Letters of Credit	56
SECTION 5.07. Financial Condition	57
SECTION 5.08. Compliance with Laws	57
ARTICLE VI Events of Default	57
ARTICLE VII The Administrative Agent	59
ARTICLE VIII Miscellaneous	62
SECTION 8.01. Notices	62
SECTION 8.02. Waivers; Amendments	63
SECTION 8.03. Expenses; Indemnity; Damage Waiver	64
SECTION 8.04. Successors and Assigns	65
SECTION 8.05. Survival	69
SECTION 8.06. Counterparts: Integration; Effectiveness	70
SECTION 8.07. Severability	70
SECTION 8.08. Right of Setoff	70
SECTION 8.09. Governing Law; Jurisdiction; Consent to Service of Process	70
SECTION 8.10. WAIVER OF JURY TRIAL	71
SECTION 8.11. Headings	71
SECTION 8.12. Confidentiality	71
SECTION 8.13. Interest Rate Limitation	73
SECTION 8.14. USA PATRIOT Act	73
SECTION 8.15. No Fiduciary Duty	73
SECTION 8.16. Acknowledgement and Consent to Bail-In of EEA Financial Institutions	73
SECTION 8.17. Amendment and Restatement	74

SCHEDULES :

Schedule 2.01 - Commitments

Schedule 4.01 - Repaid Indebtedness

EXHIBITS :

Exhibit A – Form of Assignment and Assumption

Exhibit B – Form of Assumption Agreement

Exhibit C-1 – Form of U.S. Tax Certificate

Exhibit C-2 – Form of U.S. Tax Certificate

Exhibit C-3 – Form of U.S. Tax Certificate

Exhibit C-4 –Form of U.S. Tax Certificate

THIRD AMENDED AND RESTATED CREDIT AGREEMENT

THIS THIRD AMENDED AND RESTATED CREDIT AGREEMENT (as from time to time amended, supplemented or otherwise modified, this “Agreement”), dated as of September 9, 2016, is by and among NATIONAL FUEL GAS COMPANY, a New Jersey corporation (the “Borrower”), the LENDERS party hereto, and JPMORGAN CHASE BANK, NATIONAL ASSOCIATION, as administrative agent for the Lenders (in such capacity, the “Administrative Agent”).

WHEREAS, the Borrower, the Administrative Agent, and the lenders party thereto from time to time are parties to the Existing Credit Agreement, as herein defined. Pursuant to the Existing Credit Agreement, the lenders party thereto made a multi-year facility commitment in the aggregate amount of \$750,000,000 and a 364-day facility in the aggregate amount of \$500,000,000, respectively.

WHEREAS, the Borrower has requested that a new 364-day facility be provided by certain Lenders party hereto.

WHEREAS, the Borrower, the Administrative Agent, and the Lenders party hereto have agreed to enter into this Agreement in order to amend and restate the Existing Credit Agreement in its entirety to, among other things, replace the existing 364-day facility with a new 364-day facility, and modify certain other provisions set forth in the Existing Credit Agreement, all on the terms and conditions set forth in this Agreement.

In consideration of the terms and conditions contained in this Agreement, and of any loans or extensions of credit or other financial accommodations at any time made to or for the benefit of Borrower by Lenders, the parties hereto hereby agree that the Existing Credit Agreement is hereby amended and restated as follows:

ARTICLE I

Definitions

SECTION 1.01. Defined Terms. As used in this Agreement, the following terms have the meanings specified below:

“364-Day Facility Availability Period” means the period from and including the Effective Date to but excluding the earlier of the 364-Day Facility Maturity Date and the 364-Day Facility Commitment Termination Date.

“364-Day Facility Commitment” means, with respect to each Lender, the commitment of such Lender to make 364-Day Facility Loans hereunder, expressed as an amount representing the maximum aggregate amount of such Lender’s 364-Day Facility Exposure hereunder, as such commitment may be (a) reduced from time to time pursuant to Section 2.08 and (b) reduced or increased from time to time pursuant to assignments by or to such Lender pursuant to Section 8.04. The initial amount of each Lender’s 364-Day Facility Commitment is set forth on Schedule 2.01, or in the Assignment and Assumption pursuant to which such Lender shall have

assumed its 364-Day Facility Commitment, as applicable. The initial aggregate amount of the Lenders' 364-Day Facility Commitments is \$500,000,000.

“364-Day Facility Commitment Termination Date” means September 8, 2017.

“364-Day Facility Exposure” means, with respect to any Lender at any time, the sum of the outstanding principal amount of such Lender's 364-Day Facility Loans at such time.

“364-Day Facility Loan” means a Loan made pursuant to Section 2.01(b).

“364-Day Facility Maturity Date” means September 8, 2017.

“364-Day Facility Required Lenders” means, at any time, Lenders having 364-Day Facility Exposures and unused 364-Day Facility Commitments representing, in the aggregate, more than 50% of the sum of the total 364-Day Facility Exposures and unused 364-Day Facility Commitments at such time; provided, that any Lender that is the Borrower, or any Affiliate of the Borrower shall be disregarded.

“ABR”, when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are bearing interest at a rate determined by reference to the Alternate Base Rate.

“Adjusted LIBO Rate” means, with respect to any Eurodollar Borrowing for any Interest Period, an interest rate per annum (rounded upwards, if necessary to the next 1/100 of 1%) equal to (a) the LIBO Rate for such Interest Period multiplied by (b) the Statutory Reserve Rate.

“Administrative Agent” has the meaning assigned to such term in the preamble hereto.

“Administrative Questionnaire” means an Administrative Questionnaire in a form supplied by the Administrative Agent.

“Affected Lender” has the meaning assigned to such term in Section 2.20.

“Affiliate” means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

“Alternate Base Rate” means, for any day, a rate per annum equal to the greatest of (a) the Prime Rate in effect on such day, (b) the Federal Funds Effective Rate in effect on such day plus ½ of 1% and (c) the Adjusted LIBO Rate for a one-month Interest Period on such day (or if such day is not a Business Day, the immediately preceding Business Day) plus 1%, provided that the Adjusted LIBO Rate for any day shall be based on the LIBO Rate at approximately 11:00 a.m. London time on such day. Any change in the Alternate Base Rate due to a change in the Prime Rate, the Federal Funds Effective Rate or the Adjusted LIBO Rate shall be effective from and including the effective date of such change in the Prime Rate, the Federal Funds Effective Rate or the Adjusted LIBO Rate, respectively.

“ Anti-Corruption Laws ” means all laws, rules, and regulations of any jurisdiction applicable to the Borrower or any of its Affiliates from time to time concerning or relating to bribery or corruption.

“ Anti-Terrorism Law ” means the USA Patriot Act or any other law pertaining to the prevention of future acts of terrorism, in each case as such law may be amended from time to time.

“ Applicable Margin ” means a percentage determined in accordance with the following pricing grid:

<u>Ratings of Index Debt</u> <u>(S&P/Moody's/Fitch)</u>	<u>Facility Fee</u> (basis points)	<u>Adjusted LIBO Rate</u> <u>Applicable Margin</u> (basis points)	<u>ABR</u> <u>Applicable Margin</u> (basis points)
A / A2 / A	7.5	80.0	0
A- / A3 / A-	10.0	90.0	0
BBB+ / Baa1 / BBB +	12.5	100.0	0
BBB / Baa2 / BBB	15.0	110.0	10.0
BBB- / Baa3 / BBB-	17.5	132.5	32.5
<BBB- / Baa3 / BBB-	22.5	152.5	52.5

In the event of split ratings, (i) if all three Rating Agencies issue a rating and if the ratings from two Rating Agencies are at the same level and the rating from the third Rating Agency is at a lower level, the higher rating shall apply; (ii) if the ratings from two Rating Agencies are at the same level and the rating from the third Rating Agency is at a higher level, the lower rating shall apply; (iii) if all three ratings from the Rating Agencies are at different levels, the rating next below the highest of the three shall apply; (iv) if only two Rating Agencies issue a rating, the higher of such ratings shall apply, provided that if the higher rating is two or more levels above the lower rating then the rating which is one level above the lower of the two ratings shall apply; and (v) if only one Rating Agency issues a rating, such rating shall apply. If the ratings established or deemed to have been established by any Rating Agency shall be changed (other than as a result of a change in the rating system of such Rating Agency), such change shall be effective as of the date on which it is first announced by the applicable Rating Agency, irrespective of when notice of such change shall have been furnished by the Borrower to the Administrative Agent. Each change in the Applicable Margin shall apply during the period commencing on the effective date of such change and ending on the date immediately preceding the effective date of the next such change.

“ Applicable Percentage ” means, with respect to any Lender, the percentage of the total Commitments represented by such Lender's Commitment; provided that in the case of Section

2.20 when a Defaulting Lender shall exist, “Applicable Percentage” shall mean the percentage of the total Commitments (disregarding any Defaulting Lender’s Commitment) represented by such Lender’s Commitment. If the Commitments have terminated or expired, the Applicable Percentages shall be determined based upon the Commitments most recently in effect, giving effect to any assignments and to any Lender’s status as a Defaulting Lender at the time of determination.

“Approved Fund” has the meaning assigned to such term in Section 8.04.

“Assignment and Assumption” means an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 8.04), and accepted by the Administrative Agent, in the form of Exhibit A or any other form approved by the Administrative Agent.

“Assuming Lenders” has the meaning assigned to such term in Section 2.09.

“Assumption Agreement” has the meaning assigned to such term in Section 2.09.

“Auto-Extension Letter of Credit” has the meaning assigned to such term in Section 2.05(c).

“Bail-In Action” means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation” means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bankruptcy Code” means the Federal Bankruptcy Code of 1978, as amended from time to time.

“Bankruptcy Event” means, with respect to any Person, such Person becomes the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment, provided that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, provided, further, that such ownership interest does not result in or provide such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

“Board” means the Board of Governors of the Federal Reserve System of the United States of America.

“Borrower” has the meaning assigned to such term in the preamble hereto.

“Borrowing” means (a) Loans of the same Type, made, converted or continued on the same date and, in the case of Eurodollar Loans, as to which a single Interest Period is in effect or (b) a Swingline Loan.

“Borrowing Request” means a request by the Borrower for a Borrowing in accordance with Section 2.03.

“Business Day” means any day that is not a Saturday, Sunday or other day on which commercial banks in New York City are authorized or required by law to remain closed; provided that, when used in connection with a Eurodollar Loan, the term “Business Day” shall also exclude any day on which banks are not open for dealings in dollar deposits in the London interbank market.

“Capital Lease Obligations” of any Person means the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) real or personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases on a balance sheet of such Person under GAAP, and the amount of such obligations shall be the capitalized amount thereof determined in accordance with GAAP.

“Cash Collateralize” means, to pledge and deposit with (in a collateral account established and maintained on the books of the Administrative Agent, for the benefit of the Lenders and the Issuing Banks, which account shall be a deposit account or, if the Administrative Agent and the Issuing Banks shall agree in their sole discretion, a “securities account” (as defined in Section 8-501 of the Uniform Commercial Code as in effect from time to time in the State of New York)) or deliver to the Administrative Agent, for the benefit of the Issuing Banks and Lenders, as collateral for LC Exposure or obligations of Lenders to fund participations in respect of LC Exposure, cash or deposit account balances or, if the Administrative Agent and each Issuing Bank shall agree in their sole discretion, other credit support, in each case pursuant to documentation in form and substance satisfactory to the Administrative Agent and each applicable Issuing Bank. “Cash Collateral” shall have a meaning correlative to the foregoing and shall include the proceeds of such cash collateral and other credit support.

“Change in Law” means the occurrence after the date of this Agreement (or, with respect to any Lender, such later date on which such Lender becomes a party to this Agreement) of (a) the adoption of or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the interpretation or application thereof by any Governmental Authority or (c) compliance by any Lender or any Issuing Bank (or, for purposes of Section 2.15(b), by any lending office of such Lender or by such Lender’s or such Issuing Bank’s holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the date of this Agreement; provided however, that notwithstanding anything herein to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder, issued in connection therewith or in implementation thereof and (ii) all requests, rules, guidelines and directives promulgated by the Bank for International Settlements, the Basel Committee on

Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a “Change in Law”, regardless of the date enacted, adopted or issued.

“Class”, when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are Multi-Year Facility Loans, 364-Day Facility Loans or Swingline Loans.

“CLO” has the meaning assigned to such term in Section 8.04.

“Code” means the Internal Revenue Code of 1986, as amended.

“Commitment” means, with respect to each Lender, such Lender’s Multi-Year Facility Commitment and 364-Day Facility Commitment.

“Commitment Increase” has the meaning assigned to such term in Section 2.09.

“Commitment Increase Date” has the meaning assigned to such term in Section 2.09.

“Connection Income Taxes” means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

“Consolidated Capitalization” means, at any date, the sum of Consolidated Net Worth and Consolidated Indebtedness.

“Consolidated Indebtedness” means, at any date, all Indebtedness of the Borrower and its Subsidiaries at such date, determined on a consolidated basis in accordance with GAAP.

“Consolidated Net Worth” means, at any date, all amounts that would, in conformity with GAAP, be included on a consolidated balance sheet of the Borrower and its Subsidiaries under stockholders’ equity at such time.

“Control” means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. “Controlling” and “Controlled” have meanings correlative thereto.

“Credit Party” means the Administrative Agent, any Issuing Bank, the Swingline Lender or any other Lender.

“Default” means any event or condition which constitutes an Event of Default or which upon notice, lapse of time or both would, unless cured or waived, become an Event of Default.

“Defaulting Lender” means any Lender that (a) has failed, within two Business Days of the date required to be funded or paid, to (i) fund any portion of its Loans, (ii) fund any portion of its participations in Letters of Credit or Swingline Loans or (iii) pay over to any Credit Party

any other amount required to be paid by it hereunder, unless, in the case of clause (i) above, such Lender notifies the Administrative Agent and, to the extent such notice would not violate any applicable automatic stay with respect to the Borrower, the Borrower, in writing that such failure is the result of such Lender's good faith determination that a condition precedent to funding (specifically identified and including the particular default, if any) has not been satisfied, (b) has notified the Borrower or any Credit Party in writing, or has made a public statement to the effect, that it does not intend or expect to comply with any of its funding obligations under this Agreement (unless such writing or public statement indicates that such position is based on such Lender's good faith determination that a condition precedent (specifically identified and including the particular default, if any) to funding a Loan under this Agreement cannot be satisfied) or generally under other agreements in which it commits to extend credit, (c) has failed, within three Business Days after request by a Credit Party, acting in good faith, to provide a certification in writing from an authorized officer of such Lender that it will comply with its obligations (and is financially able to meet such obligations) to fund prospective Loans and participations in then outstanding Letters of Credit and Swingline Loans under this Agreement, provided that such Lender shall cease to be a Defaulting Lender pursuant to this clause (c) upon such Credit Party's receipt of such certification in form and substance satisfactory to it and the Administrative Agent, or (d) has, or has a direct or indirect parent company that has, (i) become the subject of a Bankruptcy Event or (ii) become the subject of a Bail-In Action.

"dollars" or "\$" refers to lawful money of the United States of America.

"EEA Financial Institution" means (a) any institution established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegatee) having responsibility for the resolution of any EEA Financial Institution.

"Effective Date" means the date on which the conditions specified in Section 4.01 are satisfied (or waived in accordance with Section 8.02).

"Environmental Laws" means all laws, rules, regulations, codes, ordinances, orders, decrees, judgments, injunctions, notices or binding agreements issued, promulgated or entered into by any Governmental Authority, relating in any way to the environment, preservation or reclamation of natural resources, the management, release or threatened release of any Hazardous Material or to health and safety matters.

"Environmental Liability" means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the

Borrower or any Subsidiary directly or indirectly resulting from or based upon (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Materials into the environment or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended from time to time.

“ERISA Affiliate” means any trade or business (whether or not incorporated) that, together with the Borrower, is treated as a single employer under Section 414(b) or (c) of the Code or, solely for purposes of Section 302 of ERISA and Section 412 of the Code, is treated as a single employer under Section 414 of the Code.

“ERISA Event” means (a) any “reportable event”, as defined in Section 4043 of ERISA or the regulations issued thereunder with respect to a Plan (other than an event for which the 30-day notice period is waived); (b) the failure to satisfy the “minimum funding standard” (as defined in Section 412 of the Code or Section 302 of ERISA), whether or not waived; (c) the filing pursuant to Section 412(c) of the Code or Section 302(c) of ERISA of an application for a waiver of the minimum funding standard with respect to any Plan; (d) the incurrence by the Borrower or any of its ERISA Affiliates of any liability under Title IV of ERISA with respect to the termination of any Plan; (e) the receipt by the Borrower or any ERISA Affiliate from the PBGC or a plan administrator of any notice relating to an intention to terminate any Plan or Plans or to appoint a trustee to administer any Plan; (f) the incurrence by the Borrower or any of its ERISA Affiliates of any liability with respect to the withdrawal or partial withdrawal of the Borrower or any of its ERISA Affiliates from any Plan or Multiemployer Plan; or (g) the receipt by the Borrower or any ERISA Affiliate of any notice, or the receipt by any Multiemployer Plan from the Borrower or any ERISA Affiliate of any notice, concerning the imposition upon the Borrower or any of its ERISA Affiliates of Withdrawal Liability or a determination that a Multiemployer Plan is, or is expected to be, insolvent or in reorganization, within the meaning of Title IV of ERISA.

“EU Bail-In Legislation Schedule” means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

“Eurodollar” when used in reference to any Loan or Borrowing, refers to whether such Loan, or the Loans comprising such Borrowing, are bearing interest at a rate determined by reference to the Adjusted LIBO Rate.

“Event of Default” has the meaning assigned to such term in Article VI.

“Excluded Taxes” means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office

located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. Federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan, Letter of Credit or Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Loan, Letter of Credit or Commitment (other than pursuant to an assignment request by the Borrower under Section 2.19(b)) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 2.17, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender acquired the applicable interest in a Loan, Letter of Credit or Commitment or to such Lender immediately before it changed its lending office, (c) in the case of a Non-U.S. Lender (other than an assignee pursuant to a request by the Borrower under Section 2.19(b)), any U.S. Federal withholding Taxes resulting from any law in effect on such date such Non-U.S. Lender becomes a party to this Agreement (or designates a new lending office) or is attributable to such Non-U.S. Lender's failure to comply with Section 2.17(f), except to the extent that such Non-U.S. Lender (or its assignor, if any) was entitled, at the time of designation of a new lending office (or assignment), to receive additional amounts from the Borrower with respect to such withholding Taxes pursuant to Section 2.17(a) and (d) any U.S. federal withholding Taxes imposed under FATCA.

“Existing Credit Agreement” means the Second Amended and Restated Credit Agreement dated as of September 30, 2015, among Borrower, JPMorgan Chase Bank, National Association, the Lenders party thereto, and the lenders party thereto from time to time.

“FATCA” means the Foreign Account Tax Compliance Act as set forth in Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable), any current or future regulations or official interpretations thereof and any agreement entered into pursuant to Section 1471(b)(1) of the Code.

“Federal Funds Effective Rate” means, for any day, the weighted average (rounded upwards, if necessary, to the next 1/100 of 1%) of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers, as published on the next succeeding Business Day by the Federal Reserve Bank of New York, or, if such rate is not so published for any day that is a Business Day, the average (rounded upwards, if necessary, to the next 1/100 of 1%) of the quotations for such day for such transactions received by the Administrative Agent from three Federal funds brokers of recognized standing selected by it; provided, that, if the Federal Funds Effective Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Financial Officer” means the principal financial officer, principal accounting officer, treasurer or controller of the Borrower.

“Financial Statements” means the financial statements to be furnished pursuant to Sections 5.01(a) and (b).

“Fitch” means Fitch, Inc.

“ GAAP ” means generally accepted accounting principles in the United States of America.

“ Governmental Approval ” means any authorization, consent, approval, license, ruling, permit, tariff, rate, certification, exemption, filing, variance, order, judgment, decree, publication, notice to, declaration of or registration by or with any Governmental Authority.

“ Governmental Authority ” means the government of the United States of America or of any other nation, or any political subdivision of any of them, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank) .

“ Guarantee ” of or by any Person (the “ guarantor ”) means any obligation, contingent or otherwise, of the guarantor guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation of any other Person (the “ primary obligor ”) in any manner, whether directly or indirectly, and including any obligation of the guarantor, direct or indirect, (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation or to purchase (or to advance or supply funds for the purchase of) any security for the payment thereof, (b) to purchase or lease property, securities or services for the purpose of assuring the owner of such Indebtedness or other obligation of the payment thereof, (c) to maintain working capital, equity capital or any other financial statement condition or liquidity of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation or (d) as an account party in respect of any letter of credit or letter of guaranty issued to support such Indebtedness or obligation; provided, that the term Guarantee shall not include endorsements for collection or deposit in the ordinary course of business.

“ Hazardous Materials ” means all pollutants, contaminants, explosive or radioactive substances or wastes, hazardous or toxic substances or wastes, petroleum or petroleum distillates, asbestos or asbestos containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated pursuant to any Environmental Law.

“ Impacted Interest Period ” has the meaning assigned to it in the definition of “LIBO Rate.”

“ Increasing Lender(s) ” has the meaning assigned to such term in Section 2.09.

“ Indebtedness ” of any Person means, without duplication, (a) all obligations of such Person for borrowed money or with respect to deposits or advances of any kind, (b) all obligations of such Person evidenced by bonds, debentures, notes or similar instruments, (c) all obligations of such Person upon which interest charges are customarily paid, (d) all obligations of such Person under conditional sale or other title retention agreements relating to property acquired by such Person, (e) all obligations of such Person in respect of the deferred purchase price of property or services (excluding current accounts payable incurred in the ordinary course of business), (f) all Indebtedness of others secured by (or for which the holder of such

Indebtedness has an existing right, contingent or otherwise, to be secured by) any Lien on property owned or acquired by such Person, whether or not the Indebtedness secured thereby has been assumed, (g) all Guarantees by such Person of Indebtedness of others, (h) all Capital Lease Obligations of such Person, (i) all obligations, contingent or otherwise, of such Person as an account party in respect of letters of credit and letters of guaranty and (j) all obligations, contingent or otherwise, of such Person in respect of bankers' acceptances. The Indebtedness of any Person shall include the Indebtedness of any other entity (including any partnership in which such Person is a general partner) to the extent such Person is liable therefor as a result of such Person's ownership interest in or other relationship with such entity, except to the extent the terms of such Indebtedness provide that such Person is not liable therefor.

“Indemnified Taxes” means (a) Taxes other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of the Borrower under this Agreement and (b) to the extent not otherwise described in clause (a), Other Taxes.

“Index Debt” means senior, unsecured, long-term indebtedness for borrowed money of the Borrower that is not guaranteed by any other Person or subject to any other credit enhancement.

“Ineligible Institution” has the meaning assigned to it in Section 8.04(b).

“Interest Election Request” means a request by the Borrower to convert or continue a Borrowing in accordance with Section 2.07.

“Interest Payment Date” means (a) with respect to any ABR Loan (other than a Swingline Loan), the last day of each March, June, September and December, (b) with respect to any Eurodollar Loan, the last day of the Interest Period applicable to the Borrowing of which such Loan is a part and, in the case of a Eurodollar Borrowing with an Interest Period of more than three months' duration, each day prior to the last day of such Interest Period that occurs at intervals of three months' duration after the first day of such Interest Period, and (c) with respect to any Swingline Loan, the day that such Loan is required to be paid.

“Interest Period” means, with respect to any Eurodollar Borrowing, the period commencing on the date of such Borrowing and ending on the numerically corresponding day in the calendar month that is one, two, three or six months thereafter, as the Borrower may elect; provided, that (a) if any Interest Period would end on a day other than a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless such next succeeding Business Day would fall in the next calendar month, in which case such Interest Period shall end on the next preceding Business Day, (b) any Interest Period pertaining to a Eurodollar Borrowing that commences on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the last calendar month of such Interest Period) shall end on the last Business Day of the last calendar month of such Interest Period, (c) no Interest Period with respect to any portion of any Multi-Year Facility Loan shall extend beyond the Multi-Year Facility Maturity Date and (d) no Interest Period with respect to any portion of any 364-Day Facility Loan shall extend beyond the 364-Day Facility Maturity Date. For purposes hereof, the date of a Borrowing initially shall be the date on which such Borrowing

is made and thereafter shall be the effective date of the most recent conversion or continuation of such Borrowing.

“ Interpolated Rate ” means, at any time, for any Interest Period, the rate per annum (rounded to the same number of decimal places as the LIBO Screen Rate) determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the LIBO Screen Rate for the longest period (for which the LIBO Screen Rate is available) that is shorter than the Impacted Interest Period; and (b) the LIBO Screen Rate for the shortest period (for which that LIBO Screen Rate is available) that exceeds the Impacted Interest Period, in each case, at such time.

“ IRS ” means the United States Internal Revenue Service.

“ Issuing Bank ” means JPMorgan Chase Bank, National Association in its capacity as the issuer of Letters of Credit hereunder, and its successors in such capacity as provided in Section 2.05(i) and each Lender that shall become an Issuing Bank hereunder pursuant to Section 2.05(i), in its capacity as such, and its successors in such capacity as provided in Section 2.05(i). Any Issuing Bank may, with the consent of the Borrower (such consent not to be unreasonably withheld), arrange for one or more Letters of Credit to be issued by Affiliates of such Issuing Bank, in which case the term “Issuing Bank” shall include any such Affiliate with respect to Letters of Credit issued by such Affiliate. As to a particular Letter of Credit, “ Issuing Bank ” or “ relevant Issuing Bank ” shall mean the Issuing Bank which issued such Letter of Credit.

“ LC Disbursement ” means a payment made by any Issuing Bank pursuant to a Letter of Credit.

“ LC Exposure ” means, at any time, the sum of (a) the aggregate undrawn amount of all outstanding Letters of Credit at such time plus (b) the aggregate amount of all LC Disbursements that have not yet been reimbursed by or on behalf of the Borrower at such time. The LC Exposure of any Lender at any time shall be its Applicable Percentage of the total LC Exposure at such time.

“ Lenders ” means the Persons listed on Schedule 2.01 and any other Person that shall have become a party hereto pursuant to an Assignment and Assumption, other than any such Person that ceases to be a party hereto pursuant to an Assignment and Assumption. Unless the context otherwise requires, the term “Lenders” includes the Swingline Lender.

“ Lender Parent ” means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

“ Lender Party ” means the Administrative Agent, any Issuing Bank, the Swingline Lender or any other Lender.

“ Letter of Credit ” means any letter of credit issued pursuant to this Agreement.

“ LIBO Rate ” means, with respect to any Eurodollar Borrowing for any Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any

other Person that takes over the administration of such rate) for U.S. Dollars for a period equal in length to such Interest Period as displayed on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate (or, in the event such rate does not appear on a Reuters page or screen, on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion; in each case the (“LIBO Screen Rate”) at approximately 11:00 a.m., London time, two Business Days prior to the commencement of such Interest Period; provided that if the LIBO Screen Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement; provided further that if the Screen Rate shall not be available at such time for such Interest Period (an “Impacted Interest Period”) then the LIBO Rate shall be the Interpolated Rate; provided that if any Interpolated Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“LIBO Screen Rate” has the meaning assigned to it in the definition of “LIBO Rate.”

“Lien” means, with respect to any asset, (a) any mortgage, deed of trust, lien, pledge, hypothecation, encumbrance, charge or security interest in, on or of such asset, (b) the interest of a vendor or a lessor under any conditional sale agreement, capital lease or title retention agreement (or any financing lease having substantially the same economic effect as any of the foregoing) relating to such asset and (c) in the case of securities, any purchase option, call or similar right of a third party with respect to such securities.

“Loan Documents” means this Agreement and the documents delivered pursuant hereto.

“Loans” means the loans made by the Lenders to the Borrower pursuant to this Agreement.

“Material Adverse Effect” means a material adverse effect on (a) the business, assets, property, results of operations or financial condition of the Borrower and its Subsidiaries taken as a whole, (b) the validity or enforceability of, or the ability of the Borrower to perform any of its obligations under, this Agreement or (c) the rights of, or remedies or benefits available to, the Administrative Agent and the Lenders under this Agreement.

“Material Subsidiary” means, at any time, a Subsidiary of the Borrower whose assets exceed 10% of the consolidated assets of the Borrower and its Subsidiaries, other than any Subsidiary that is not a U.S. Person.

“Moody’s” means Moody’s Investors Service, Inc.

“Multiemployer Plan” means a multiemployer plan as defined in Section 4001(a)(3) of ERISA.

“Multi-Year Facility Availability Period” means the period from and including the Effective Date to but excluding the earlier of the Multi-Year Facility Maturity Date and the Multi-Year Facility Commitment Termination Date.

“Multi-Year Facility Commitment” means, with respect to each Lender, the commitment of such Lender to make Multi-Year Facility Loans, and the commitment of such Lender to

acquire participations in Letters of Credit and Swingline Loans hereunder, expressed as an amount representing the maximum aggregate amount of such Lender's Multi-Year Facility Exposure hereunder, as such commitment may be (a) reduced from time to time pursuant to Section 2.08, (b) increased from time to time pursuant to Section 2.09 and (c) reduced or increased from time to time pursuant to assignments by or to such Lender pursuant to Section 8.04. The initial amount of each Lender's Multi-Year Facility Commitment is set forth on Schedule 2.01, or in the Assignment and Assumption pursuant to which such Lender shall have assumed its Multi-Year Facility Commitment, as applicable. The initial aggregate amount of the Lenders' Multi-Year Facility Commitments is \$750,000,000.

"Multi-Year Facility Commitment Termination Date" means December 5, 2019.

"Multi-Year Facility Exposure" means, with respect to any Lender at any time, the sum of the outstanding principal amount of such Lender's Multi-Year Facility Loans and its LC Exposure and Swingline Exposure at such time.

"Multi-Year Facility Loan" means a Loan made pursuant to Section 2.01.

"Multi-Year Facility Maturity Date" means December 5, 2019.

"Multi-Year Facility Required Lenders" means, at any time, Lenders having Multi-Year Facility Exposures and unused Multi-Year Facility Commitments representing, in the aggregate, more than 50% of the sum of the total Multi-Year Facility Exposures and unused Multi-Year Facility Commitments at such time; provided, that any Lender that is the Borrower, or any Affiliate of the Borrower shall be disregarded.

"Non-Extension Notice Date" has the meaning assigned to such term in Section 2.05(c).

"Non-U.S. Lender" means a Lender that is not a U.S. Person.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Taxes (other than a connection arising from such Recipient having executed, delivered, enforced, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, or engaged in any other transaction pursuant to, or enforced, this Agreement, or sold or assigned an interest in this Agreement).

"Other Taxes" means any present or future stamp, court, documentary intangible, recording, filing or similar other excise or property Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, or from the registration, receipt or perfection of a security interest under, or otherwise with respect to, this Agreement, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment under Section 2.19(b)).

"Other Obligations" has the meaning set forth in Section 5.05.

"Parent" means, with respect to any Lender, any Person as to which such Lender is, directly or indirectly, a subsidiary.

“ Participant ” has the meaning set forth in Section 8.04.

“ Participant Register ” has the meaning set forth in Section 8.04(c).

“ PBGC ” means the Pension Benefit Guaranty Corporation referred to and defined in ERISA and any successor entity performing similar functions.

“ Permitted Receivables Financing ” shall mean a transaction or series of transactions pursuant to which a Securitization Subsidiary purchases Receivables Assets or interests therein from the Borrower or any Subsidiary of the Borrower and finances such Receivables Assets or interests therein through the issuance of Indebtedness or equity interests or through the sale of such Receivables Assets or interests therein; provided that (a) the Board of Directors of the Borrower shall have approved such transaction, (b) no portion of the Indebtedness of a Securitization Subsidiary is guaranteed by or is recourse to the Borrower or any Subsidiary (other than recourse for customary representations, warranties, covenants and indemnities, none of which shall relate to the collectibility of such Receivables Assets), and (c) neither the Borrower nor any other Subsidiary has any obligation to maintain or preserve such Securitization Subsidiary’s financial condition.

“ Person ” means any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

“ Plan ” means any employee pension benefit plan (other than a Multiemployer Plan) subject to the provisions of Title IV of ERISA or Section 412 of the Code or Section 302 of ERISA, and in respect of which the Borrower or any ERISA Affiliate is (or, if such plan were terminated, would under Section 4069 of ERISA be deemed to be) an "employer" as defined in Section 3(5) of ERISA.

“ Prime Rate ” means the rate of interest per annum publicly announced from time to time by JPMorgan Chase Bank, National Association as its prime rate in effect at its office located at 270 Park Avenue, New York, New York; each change in the Prime Rate shall be effective from and including the date such change is publicly announced as being effective.

“ Rating Agency ” means, each of Moody’s, S&P and Fitch.

“ Receivables Assets ” shall mean accounts receivable (including any bills of exchange) and related assets and property from time to time originated, acquired or otherwise owned by the Borrower or any Subsidiary.

“ Recipient ” means, as applicable, (a) the Administrative Agent, (b) any Lender and (c) any Issuing Bank.

“ Register ” has the meaning set forth in Section 8.04.

“ Related Parties ” means, with respect to any specified Person, such Person’s Affiliates and the respective directors, officers, employees, agents and advisors of such Person and such Person’s Affiliates.

“Required Lenders” means, at any time, Lenders having Multi-Year Facility Exposures, 364-Day Facility Exposures and unused Commitments representing, in the aggregate, more than 50% of the sum of the total Multi-Year Facility Exposures, 364-Day Facility Exposures and unused Commitments at such time; provided that, for purposes of declaring the Loans to be due and payable pursuant to Article VI, and for all purposes after the Loans become due and payable pursuant to Article VI or the Commitments expire or terminate, then, as to each Lender, clause (a) of the definition of Swingline Exposure shall only be applicable for purposes of determining its Multi-Year Facility Exposure to the extent such Lender shall have funded its participation in the outstanding Swingline Loans; provided further that for the purpose of determining the Required Lenders needed for any waiver, amendment, modification or consent, and without limiting Section 8.04, any Lender that is the Borrower, or any Affiliate of the Borrower shall be disregarded.

“Sanctioned Country” means, at any time, a country, region or territory which is itself the subject or target of any Sanctions at such time (at the time of this Agreement, Cuba, Iran, North Korea, Sudan, Syria and Crimea).

“Sanctioned Person” means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person owned or controlled by any such Person or Persons described in the foregoing clauses (a) or (b).

“Sanctions” means economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State.

“S&P” means Standard & Poor’s Rating Services, a division of the McGraw-Hill Companies, Inc.

“SEC” means the United States Securities and Exchange Commission or any successor thereto.

“Securitization Subsidiary” shall mean a Subsidiary that is established for the limited purpose of acquiring and financing Receivables Assets and interests therein of the Borrower or any Subsidiary and engaging in activities ancillary thereto.

“Statutory Reserve Rate” means a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentage (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the Board to which the Administrative Agent is subject with respect to the Adjusted LIBO Rate, for eurocurrency funding (currently referred to as “Eurocurrency Liabilities” in Regulation D of the Board). Such reserve percentage shall include those imposed pursuant to such Regulation D. Eurodollar Loans shall be deemed to constitute eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any

Lender under such Regulation D or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

“subsidiary” means, with respect to any Person (the “parent”) at any date, any corporation, limited liability company, partnership, association or other entity the accounts of which would be consolidated with those of the parent in the parent’s consolidated financial statements if such financial statements were prepared in accordance with GAAP as of such date, as well as any other corporation, limited liability company, partnership, association or other entity (a) of which securities or other ownership interests representing more than 50% of the equity or more than 50% of the ordinary voting power or, in the case of a partnership, more than 50% of the general partnership interests are, as of such date, owned, controlled or held, or (b) that is, as of such date, otherwise Controlled, by the parent or one or more subsidiaries of the parent or by the parent and one or more subsidiaries of the parent.

“Subsidiary” means any subsidiary of the Borrower.

“Swingline Exposure” means, at any time, the aggregate principal amount of all Swingline Loans outstanding at such time. The Swingline Exposure of any Lender at any time shall be the sum of (a) its Applicable Percentage of the total Swingline Exposure at such time other than with respect to any Swingline Loans made by such Lender in its capacity as a Swingline Lender and (b) the aggregate principal amount of all Swingline Loans made by such Lender as a Swingline Lender outstanding at such time (less the amount of participations funded by the other Lenders in such Swingline Loans).

“Swingline Lender” means JPMorgan Chase Bank, National Association, in its capacity as lender of Swingline Loans hereunder.

“Swingline Loan” means a Loan made pursuant to Section 2.04.

“Taxes” means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), value added taxes, or any other goods and services, use or sales taxes, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Transactions” means the execution, delivery and performance by the Borrower of this Agreement, the borrowing of Loans, the use of the proceeds thereof and the issuance of Letters of Credit hereunder.

“Type”, when used in reference to any Loan or Borrowing, refers to whether the rate of interest on such Loan, or on the Loans comprising such Borrowing, is determined by reference to the Adjusted LIBO Rate or the Alternate Base Rate.

“USA Patriot Act” means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT Act) Act of 2001, as amended from time to time.

“U.S. Person” means a “United States person” within the meaning of Section 7701(a)(30) of the Code.

“U.S. Tax Certificate” has the meaning set forth in Section 2.17(f).

“Wholly-Owned Subsidiary” means, for any Person, any Subsidiary of such Person of which all of the equity securities or other ownership interests (other than in the case of a corporation, directors’ qualifying shares) are directly or indirectly owned or Controlled by such Person.

“Withdrawal Liability” means liability to a Multiemployer Plan as a result of a complete or partial withdrawal from such Multiemployer Plan, as such terms are defined in Part I of Subtitle E of Title IV of ERISA.

“Withholding Agent” means, the Borrower and the Administrative Agent

“Write-Down and Conversion Powers” means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

SECTION 1.02. Classification of Loans and Borrowings. For purposes of this Agreement, Loans may be classified and referred to by Class (e.g., a Multi-Year Facility Loan, a 364-Day Facility Loan or a Swingline Loan) or by Type (e.g., a Eurodollar Loan or ABR Loan). Borrowings also may be classified and referred to by Class (e.g., a Multi-Year Facility Borrowing, a 364-Day Facility Borrowing or a Swingline Borrowing) or by Type (e.g., a Eurodollar Borrowing or ABR Borrowing).

SECTION 1.03. Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”. The word “will” shall be construed to have the same meaning and effect as the word “shall”. Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (b) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (c) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (d) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement and (e) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

SECTION 1.04. Accounting Terms; GAAP. Except as otherwise expressly provided herein, all terms of an accounting or financial nature shall be construed in accordance

with GAAP, as in effect from time to time; provided that, if the Borrower notifies the Administrative Agent that the Borrower requests an amendment to any provision hereof to eliminate the effect of any change occurring after the date hereof in GAAP or in the application thereof on the operation of such provision (or if the Administrative Agent notifies the Borrower that the Required Lenders request an amendment to any provision hereof for such purpose), regardless of whether any such notice is given before or after such change in GAAP or in the application thereof, then such provision shall be interpreted on the basis of GAAP as in effect and applied immediately before such change shall have become effective until such notice shall have been withdrawn or such provision amended in accordance herewith.

ARTICLE II

The Credits

SECTION 2.01. Commitments.

(a) Multi-Year Facility Commitments. Subject to the terms and conditions set forth herein, each Lender agrees to make Multi-Year Facility Loans to the Borrower from time to time during the Multi-Year Facility Availability Period in an aggregate principal amount that will not result in (i) such Lender's Multi-Year Facility Exposure exceeding such Lender's Multi-Year Facility Commitment or (ii) the total Multi-Year Facility Exposures exceeding the total Multi-Year Facility Commitments. Within the foregoing limits and subject to the terms and conditions set forth herein, the Borrower may borrow, prepay and reborrow Multi-Year Facility Loans.

(b) 364-Day Facility Commitments. Subject to the terms and conditions set forth herein, each Lender agrees to make 364-Day Facility Loans to the Borrower from time to time during the 364-Day Facility Availability Period in an aggregate principal amount that will not result in (i) such Lender's 364-Day Facility Exposure exceeding such Lender's 364-Day Facility Commitment or (ii) the total 364-Day Facility Exposures exceeding the total 364-Day Facility Commitments. Within the foregoing limits and subject to the terms and conditions set forth herein, the Borrower may borrow, prepay and reborrow 364-Day Facility Loans.

SECTION 2.02. Loans and Borrowings.

(a) Each Multi-Year Facility Loan shall be made as part of a Borrowing consisting of Multi-Year Facility Loans made by the Lenders ratably in accordance with their respective Multi-Year Facility Commitments. Each 364-Day Facility Loan shall be made as part of a Borrowing consisting of 364-Day Facility Loans made by the Lenders ratably in accordance with their respective 364-Day Facility Commitments. The failure of any Lender to make any Loan required to be made by it shall not relieve any other Lender of its obligations hereunder; provided that the Commitments of the Lenders are several and no Lender shall be responsible for any other Lender's failure to make Loans as required.

(b) Subject to Section 2.14, each Borrowing, other than a Swingline Loan, shall be comprised entirely of ABR Loans or Eurodollar Loans as the Borrower may request in accordance herewith. Each Swingline Loan shall be an ABR Loan. Each Lender at its option

may make any Eurodollar Loan by causing any domestic or foreign branch or Affiliate of such Lender to make such Loan; provided that any exercise of such option shall not affect the obligation of the Borrower to repay such Loan in accordance with the terms of this Agreement.

(c) At the commencement of each Interest Period for any Eurodollar Borrowing, such Borrowing shall be in an aggregate amount that is an integral multiple of \$5,000,000 and not less than \$10,000,000. At the time that each ABR Borrowing is made, such Borrowing shall be in an aggregate amount that is an integral multiple of \$5,000,000 and not less than \$10,000,000; provided that an ABR Borrowing may be in an aggregate amount that is equal to the entire unused balance of the total Multi-Year Facility Commitments, the entire unused balance of the total 364-Day Facility Commitments or that is required to finance the reimbursement of an LC Disbursement as contemplated by Section 2.05(e). Each Swingline Loan shall be in an amount that is an integral multiple of \$500,000 and not less than \$1,000,000. Borrowings of more than one Type and Class may be outstanding at the same time; provided that there shall not at any time be more than a total of six Multi-Year Facility Eurodollar Borrowings outstanding.

(d) Notwithstanding any other provision of this Agreement, (i) the Borrower shall not be entitled to request, or to elect to convert or continue, any Borrowing of Multi-Year Facility Loans if the Interest Period requested with respect thereto would end after the Multi-Year Facility Maturity Date and (ii) the Borrower shall not be entitled to request, or to elect to convert or continue, any Borrowing of 364-Day Facility Loans if the Interest Period requested with respect thereto would end after the 364-Day Facility Maturity Date.

SECTION 2.03. Requests for Borrowings. To request a Borrowing, other than a Swingline Loan, the Borrower shall notify the Administrative Agent of such request by telephone (a) in the case of a Eurodollar Borrowing, not later than 11:00 a.m., New York City time, three Business Days before the date of the proposed Borrowing or (b) in the case of an ABR Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of the proposed Borrowing; provided that any such notice of an ABR Borrowing to finance the reimbursement of an LC Disbursement as contemplated in Section 2.05(e) may be given not later than 10:00 a.m. New York City time, on the date of the proposed Borrowing. Each such telephonic Borrowing Request shall be irrevocable and shall be confirmed promptly by hand delivery or facsimile to the Administrative Agent of a written Borrowing Request in a form approved by the Administrative Agent and signed by the Borrower. Each such telephonic and written Borrowing Request shall specify the following information in compliance with Section 2.02:

- (i) the aggregate amount of the requested Borrowing;
- (ii) the date of such Borrowing, which shall be a Business Day;
- (iii) whether such Borrowing is to be an ABR Borrowing or a Eurodollar Borrowing;

(iv) in the case of a Eurodollar Borrowing, the initial Interest Period to be applicable thereto, which shall be a period contemplated by the definition of the term “Interest Period”;

(v) the location and number of the Borrower’s account to which funds are to be disbursed, which shall comply with the requirements of Section 2.06; and

(vi) whether such Borrowing is to be a Multi-Year Facility Loan or a 364-Day Facility Loan and, in the case of a Multi-Year Facility Loan, whether such Loan shall be due on the 364th date after such Loan is made.

If no election as to the Class of Borrowing is specified, then the requested Borrowing shall be a 364-Day Facility Loan. If no election as to the Type of Borrowing is specified, then the requested Borrowing shall be an ABR Borrowing. If no Interest Period is specified with respect to any requested Eurodollar Borrowing, then the Borrower shall be deemed to have selected an Interest Period of one month’s duration. If no election as to the maturity of a Multi-Year Facility Loan is specified, then such Loan shall be due on the 364th date after such Loan is made. Promptly following receipt of a Borrowing Request in accordance with this Section, the Administrative Agent shall advise each Lender of the details thereof and of the amount of such Lender’s Loan to be made as part of the requested Borrowing.

SECTION 2.04. Swingline Loans.

(a) Subject to the terms and conditions set forth herein, the Swingline Lender agrees to make Swingline Loans to the Borrower from time to time during the Multi-Year Facility Availability Period, in an aggregate principal amount at any time outstanding that will not result in (i) the aggregate principal amount of outstanding Swingline Loans exceeding \$25,000,000 or (ii) the sum of the total Multi-Year Facility Exposures exceeding the total Commitments; provided that the Swingline Lender shall not be required to make a Swingline Loan to refinance an outstanding Swingline Loan. Within the foregoing limits and subject to the terms and conditions set forth herein, the Borrower may borrow, prepay and reborrow Swingline Loans.

(b) To request a Swingline Loan, the Borrower shall notify the Administrative Agent of such request by telephone (confirmed by telecopy), not later than 12:00 noon, New York City time, on the day of a proposed Swingline Loan. Each such notice shall be irrevocable and shall specify the requested date (which shall be a Business Day) and amount of the requested Swingline Loan. The Administrative Agent will promptly advise the Swingline Lender of any such notice received from the Borrower. The Swingline Lender shall make each Swingline Loan available to the Borrower by means of a credit to the general deposit account of the Borrower with the Swingline Lender or such other account specified by the Borrower to the Swingline Lender (or, in the case of a Swingline Loan made to finance the reimbursement of an LC Disbursement as provided in Section 2.05(e), by remittance to the relevant Issuing Bank) by 3:00 p.m., New York City time, on the requested date of such Swingline Loan.

(c) The Swingline Lender may by written notice given to the Administrative Agent require the Lenders to acquire participations in all or a portion of its Swingline Loans outstanding. Such notice shall specify the aggregate amount of Swingline Loans in which Lenders will participate. Promptly upon receipt of such notice, the Administrative Agent will give notice thereof to each Lender, specifying in such notice such Lender's Applicable Percentage of such Swingline Loans. Each Lender hereby absolutely and unconditionally agrees, promptly upon receipt of such notice from the Administrative Agent (and in any event, if such notice is received by 12:00 noon, New York City time on a Business Day, no later than 5:00 p.m. New York City time on such Business Day and, if received after 12:00 noon, New York City time on a Business Day, no later than 10:00 a.m. New York City time on the immediately succeeding Business Day), to pay to the Administrative Agent, for the account of the Swingline Lender, such Lender's Applicable Percentage of such Swingline Loan or Loans. Each Lender acknowledges and agrees that its obligation to acquire participations in Swingline Loans pursuant to this paragraph is absolute and unconditional and shall not be affected by any circumstance whatsoever, including the occurrence and continuance of a Default or reduction or termination of the Commitments, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever. Each Lender shall comply with its obligation under this paragraph by wire transfer of immediately available funds, in the same manner as provided in Section 2.06 with respect to Loans made by such Lender (and Section 2.06 shall apply, mutatis mutandis, to the payment obligations of the Lenders), and the Administrative Agent shall promptly pay to the Swingline Lender the amounts so received by it from the Lenders. The Administrative Agent shall notify the Borrower of any participations in any Swingline Loan acquired pursuant to this paragraph, and thereafter payments in respect of such Swingline Loan shall be made to the Administrative Agent and not to the Swingline Lender. Any amounts received by the Swingline Lender from the Borrower (or other party on behalf of the Borrower) in respect of a Swingline Loan after receipt by the Swingline Lender of the proceeds of a sale of participations therein shall be promptly remitted to the Administrative Agent; any such amounts received by the Administrative Agent shall be promptly remitted by the Administrative Agent to the Lenders that shall have made their payments pursuant to this paragraph and to the Swingline Lender, as their interests may appear; provided that any such payment so remitted shall be repaid to the Swingline Lender or to the Administrative Agent, as applicable, if and to the extent such payment is required to be refunded to the Borrower for any reason. The purchase of participations in a Swingline Loan pursuant to this paragraph shall not relieve the Borrower of any liability for the repayment of such Swingline Loan.

SECTION 2.05. Letters of Credit.

(a) General. Subject to the terms and conditions set forth herein, the Borrower may request the issuance of Letters of Credit as the applicant thereof for the support of its or its Subsidiaries' obligations, in a form reasonably acceptable to the Administrative Agent and the relevant Issuing Bank, at any time and from time to time during the Multi-Year Facility Availability Period. In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of any form of letter of credit application or other agreement submitted by the Borrower to, or entered into by the Borrower with, any Issuing Bank relating to any Letter of Credit, the terms and conditions of this Agreement shall control. Notwithstanding anything herein to the contrary, the Issuing Bank shall have no obligation hereunder to issue, and shall not issue, any Letter of Credit the proceeds of which would be made available to any Person (i) to fund any activity or business of or with any Sanctioned Person, or in any country or territory that, at the time of such funding, is the subject of any Sanctions or (ii) in any manner that would result in a violation of any Sanctions by any party to this Agreement.

(b) Notice of Issuance, Amendment, Renewal, Extension; Certain Conditions. To request the issuance of a Letter of Credit (or the amendment, renewal or extension of an outstanding Letter of Credit), the Borrower shall hand deliver or telecopy (or transmit by electronic communication, if arrangements for doing so have been approved by the relevant Issuing Bank) to such Issuing Bank and the Administrative Agent (no less than three Business Days in advance of the requested date of issuance, amendment, renewal or extension) a notice requesting the issuance of a Letter of Credit, or identifying the Letter of Credit to be amended, renewed or extended, and specifying the date of issuance, amendment, renewal or extension (which shall be a Business Day), the date on which such Letter of Credit is to expire (which shall comply with paragraph (c) of this Section), the amount of such Letter of Credit, the name and address of the beneficiary thereof and such other information as shall be necessary to prepare, amend, renew or extend such Letter of Credit. If requested by the relevant Issuing Bank, the Borrower also shall submit a letter of credit application on such Issuing Bank's standard form in connection with any request for a Letter of Credit. A Letter of Credit shall be issued, amended, renewed or extended only if (and upon issuance, amendment, renewal or extension of each Letter of Credit the Borrower shall be deemed to represent and warrant that), after giving effect to such issuance, amendment, renewal or extension (i) the LC Exposure shall not exceed \$50,000,000 and (ii) the sum of the total Multi-Year Facility Exposures shall not exceed the total Commitments.

(c) Expiration Date.

(i) Subject to Section 2.05(c)(ii) below, each Letter of Credit shall expire (or be subject to termination by notice from the relevant Issuing Bank to the beneficiary thereof) at or prior to the close of business on the earlier of (i) the date one year after the date of the issuance of such Letter of Credit (or, in the case of any renewal or extension thereof, one year after such renewal or extension) and (ii) the date that is five Business Days prior to the Multi-Year Facility Maturity Date.

(ii) If the Borrower so requests in any applicable letter of credit application, an Issuing Bank may, in its sole discretion, agree to issue a Letter of Credit that has automatic extension provisions (each, an “Auto-Extension Letter of Credit”); provided that any such Auto-Extension Letter of Credit must permit the Issuing Bank to prevent any such extension at least once in each twelve-month period (commencing with the date of issuance of such Letter of Credit) by giving prior notice to the beneficiary thereof not later than a day (the “Non-Extension Notice Date”) in each such twelve-month period to be agreed upon at the time such Letter of Credit is issued. Unless otherwise directed by the Issuing Bank, the Borrower shall not be required to make a specific request to the Issuing Bank for any such extension. Once an Auto-Extension Letter of Credit has been issued, the Lenders shall be deemed to have authorized (but may not require) the Issuing Bank to permit the extension of such Letter of Credit at any time to an expiry date not later than the date that is five (5) Business Days prior to the Multi-Year Facility Maturity Date; provided, however, that the Issuing Bank shall not permit any such extension if (A) the Issuing Bank has determined that it would not be permitted, or would have no obligation, at such time to issue such Letter of Credit in its revised form (as extended) under the terms hereof, or (B) it has received notice (which may be by telephone or in writing) on or before the day that is seven (7) Business Days before the Non-Extension Notice Date (1) from the Administrative Agent that the Required Lenders have elected not to permit such extension or (2) from the Administrative Agent, any Lender or the Borrower that one or more of the applicable conditions specified in Section 4.02 is not then satisfied, and in each such case directing the Issuing Bank not to permit such extension.

(d) Participations. By the issuance of a Letter of Credit (or an amendment to a Letter of Credit increasing the amount thereof) and without any further action on the part of any Issuing Bank or the Lenders, the relevant Issuing Bank hereby grants to each Lender, and each Lender hereby acquires from such Issuing Bank, a participation in such Letter of Credit equal to such Lender’s Applicable Percentage of the aggregate amount available to be drawn under such Letter of Credit. In consideration and in furtherance of the foregoing, each Lender hereby absolutely and unconditionally agrees to pay to the Administrative Agent, for the account of the relevant Issuing Bank, such Lender’s Applicable Percentage of each LC Disbursement made by such Issuing Bank and not reimbursed by the Borrower on the date due as provided in paragraph (e) of this Section, or of any reimbursement payment required to be refunded to the Borrower for any reason. Each Lender acknowledges and agrees that its obligation to acquire participations pursuant to this paragraph in respect of Letters of Credit is absolute and unconditional and shall not be affected by any circumstance whatsoever, including any amendment, renewal or extension of any Letter of Credit or the occurrence and continuance of a Default or reduction or termination of the Commitments, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever.

(e) Reimbursement. If any Issuing Bank shall make any LC Disbursement in respect of a Letter of Credit, the Borrower shall reimburse such LC Disbursement by paying to the Administrative Agent an amount equal to such LC Disbursement not later than 12:00 noon, New York City time, on the date that such LC Disbursement is made, if the Borrower shall have received notice of such LC Disbursement prior to 10:00 a.m., New York City time, on such

date, or, if such notice has not been received by the Borrower prior to such time on such date, then not later than 12:00 noon, New York City time, on (i) the Business Day that the Borrower receives such notice, if such notice is received prior to 10:00 a.m., New York City time, on the day of receipt, or (ii) the Business Day immediately following the day that the Borrower receives such notice, if such notice is not received prior to such time on the day of receipt; provided that the Borrower may, subject to the conditions to borrowing set forth herein, request in accordance with Section 2.03 or 2.04 that such payment be financed with an ABR Borrowing or Swingline Loan in an equivalent amount and, to the extent so financed, the Borrower's obligation to make such payment shall be discharged and replaced by the resulting ABR Borrowing or Swingline Loan. If the Borrower fails to make such payment when due, the Administrative Agent shall notify each Lender of the applicable LC Disbursement, the payment then due from the Borrower in respect thereof and such Lender's Applicable Percentage thereof. Promptly following receipt of such notice, each Lender shall pay to the Administrative Agent its Applicable Percentage of the payment then due from the Borrower, in the same manner as provided in Section 2.06 with respect to Loans made by such Lender (and Section 2.06 shall apply, mutatis mutandis, to the payment obligations of the Lenders), and the Administrative Agent shall promptly pay to the relevant Issuing Bank the amounts so received by it from the Lenders. Promptly following receipt by the Administrative Agent of any payment from the Borrower pursuant to this paragraph, the Administrative Agent shall distribute such payment to the relevant Issuing Bank or, to the extent that Lenders have made payments pursuant to this paragraph to reimburse such Issuing Bank, then to such Lenders and such Issuing Bank as their interests may appear. Any payment made by a Lender pursuant to this paragraph to reimburse an Issuing Bank for any LC Disbursement (other than the funding of ABR Loans or a Swingline Loan as contemplated above) shall not constitute a Loan and shall not relieve the Borrower of its obligation to reimburse such LC Disbursement.

(f) Obligations Absolute. The Borrower's obligation to reimburse LC Disbursements as provided in paragraph (e) of this Section shall be absolute, unconditional and irrevocable, and shall be performed strictly in accordance with the terms of this Agreement under any and all circumstances whatsoever and irrespective of (i) any lack of validity or enforceability of any Letter of Credit or this Agreement, or any term or provision therein, (ii) any draft or other document presented under a Letter of Credit proving to be forged, fraudulent or invalid in any respect or any statement therein being untrue or inaccurate in any respect, (iii) payment by any Issuing Bank under a Letter of Credit against presentation of a draft or other document that does not comply strictly with the terms of such Letter of Credit (so long as the documents presented appear on their face to be in substantial compliance with the terms of the Letter of Credit), or (iv) any other event or circumstance whatsoever, whether or not similar to any of the foregoing, that might, but for the provisions of this Section, constitute a legal or equitable discharge of, or provide a right of setoff against, the Borrower's obligations hereunder. Neither the Administrative Agent, the Lenders nor any Issuing Bank, nor any of their Related Parties, shall have any liability or responsibility by reason of or in connection with the issuance or transfer of any Letter of Credit or any payment or failure to make any payment thereunder (irrespective of any of the circumstances referred to in the preceding sentence), or any error, omission, interruption, loss or delay in transmission or delivery of any draft, notice or other communication under or relating to any Letter of Credit (including any document required to make a drawing thereunder), any error in interpretation of technical terms or any consequence

arising from causes beyond the control of the relevant Issuing Bank; provided that the foregoing shall not be construed to excuse such Issuing Bank from liability to the Borrower to the extent of any direct damages (as opposed to special, indirect, consequential or punitive damages, claims in respect of which are hereby waived by the Borrower to the extent permitted by applicable law) suffered by the Borrower that are caused by such Issuing Bank's failure to exercise care when determining whether drafts and other documents presented under a Letter of Credit comply with the terms thereof. The parties hereto expressly agree that, in the absence of gross negligence or willful misconduct on the part of the relevant Issuing Bank (as finally determined by a court of competent jurisdiction), such Issuing Bank shall be deemed to have exercised care in each such determination. In furtherance of the foregoing and without limiting the generality thereof, the parties agree that, with respect to documents presented which appear on their face to be in substantial compliance with the terms of a Letter of Credit, the Issuing Bank may, in its sole discretion, either accept and make payment upon such documents without responsibility for further investigation, regardless of any notice or information to the contrary, or refuse to accept and make payment upon such documents if such documents are not in strict compliance with the terms of such Letter of Credit.

(g) Disbursement Procedures. The relevant Issuing Bank shall, promptly following its receipt thereof, examine all documents purporting to represent a demand for payment under a Letter of Credit. Such Issuing Bank shall promptly notify the Administrative Agent and the Borrower by telephone (confirmed by telecopy) of such demand for payment and whether such Issuing Bank has made or will make an LC Disbursement thereunder; provided that any failure to give or delay in giving such notice shall not relieve the Borrower of its obligation to reimburse such Issuing Bank and the Lenders with respect to any such LC Disbursement.

(h) Interim Interest. If an Issuing Bank shall make any LC Disbursement, then, unless the Borrower shall reimburse such LC Disbursement in full on the date such LC Disbursement is made, the unpaid amount thereof shall bear interest, for each day from and including the date such LC Disbursement is made to but excluding the date that the Borrower reimburses such LC Disbursement, at the rate per annum then applicable to ABR Loans; provided that, if the Borrower fails to reimburse such LC Disbursement when due pursuant to paragraph (e) of this Section, then Section 2.13(d) shall apply. Interest accrued pursuant to this paragraph shall be for the account of the relevant Issuing Bank, except that interest accrued on and after the date of payment by any Lender pursuant to paragraph (e) of this Section to reimburse such Issuing Bank shall be for the account of such Lender to the extent of such payment.

(i) Replacement of an Issuing Bank; Addition of Issuing Banks.

(i) Replacement of an Issuing Bank. An Issuing Bank may be replaced by another Issuing Bank at any time by written agreement between the Borrower and the successor Issuing Bank, with contemporaneous notice to the Administrative Agent and the replaced Issuing Bank. The Administrative Agent shall notify the Lenders of any such replacement of an Issuing Bank. At the time any such replacement shall become effective, the Borrower shall pay all unpaid fees accrued for the account of the replaced Issuing Bank pursuant to Section 2.12(b). From and after the effective date of any such replacement, (i) the successor Issuing Bank shall have all the rights and obligations of the

Issuing Bank under this Agreement with respect to Letters of Credit to be issued thereafter and (ii) references herein to the term “Issuing Bank” shall be deemed to refer to such successor or to any previous Issuing Bank, or to such successor and all previous Issuing Banks, as the context shall require. After the replacement of an Issuing Bank hereunder, the replaced Issuing Bank shall remain a party hereto and shall continue to have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such replacement, but shall not be required to issue additional Letters of Credit.

(ii) **Addition of Issuing Banks.** An Issuing Bank may be added at any time by written agreement between the Borrower and the Issuing Bank to be added, provided at least three Business Days’ notice thereof is given to the Administrative Agent. The Administrative Agent shall notify the Lenders of any such addition. From and after the effective date of any such addition, the successor Issuing Bank shall have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit to be issued thereafter.

(j) **Cash Collateralization.** If any Event of Default shall occur and be continuing, on the Business Day that the Borrower receives notice from the Administrative Agent or the Required Lenders (or, if the maturity of the Loans has been accelerated, Lenders with LC Exposure representing greater than 50% of the total LC Exposure) demanding the deposit of Cash Collateral, the Borrower shall Cash Collateralize the full amount of the LC Exposure as of such date plus any accrued and unpaid interest thereon; provided that the obligation to deposit such Cash Collateral shall become effective immediately, and such deposit shall become immediately due and payable, without demand or other notice of any kind, upon the occurrence of any Event of Default with respect to the Borrower described in clause (f) or (g) of Article VI. Such deposit shall be held by the Administrative Agent as collateral for the payment and performance of the obligations of the Borrower under this Agreement. The Administrative Agent shall have exclusive dominion and control, including the exclusive right of withdrawal, over such account. Other than any interest earned on the investment of such deposits, such deposits shall not bear interest. The Administrative Agent shall invest the Cash Collateral from time to time held by it in such overnight U.S. treasury or similar short-term instruments as are selected by the Borrower and approved by the Administrative Agent, and shall maintain records adequate to determine the interest from time to time earned thereon. The Administrative Agent shall have no responsibility for any loss on any investments made by it with respect to Cash Collateral. Interest or profits, if any, on such investments shall accumulate in such account. Moneys in such account shall be applied by the Administrative Agent to reimburse the Issuing Banks, on a pro rata basis, for LC Disbursements for which they have not been reimbursed and, to the extent not so applied, shall be held for the satisfaction of the reimbursement obligations of the Borrower for the LC Exposure at such time or, if the maturity of the Loans has been accelerated (but subject to the consent of Lenders with LC Exposure representing greater than 50% of the total LC Exposure), be applied to satisfy other obligations of the Borrower under this Agreement. If the Borrower is required to provide an amount of Cash Collateral hereunder as a result of the occurrence of an Event of Default, such amount (to the extent not applied as aforesaid) shall be returned to the Borrower within three Business Days after all Events of Default have been cured or waived.

SECTION 2.06. Funding of Borrowings.

(a) Each Lender shall make each Loan to be made by it hereunder on the proposed date thereof by wire transfer of immediately available funds by 12:00 noon, New York City time, to the account of the Administrative Agent most recently designated by it for such purpose by notice to the Lenders; provided that Swingline Loans shall be made as provided in Section 2.04. The Administrative Agent will make such Loans available to the Borrower by promptly crediting the amounts so received, in like funds, to an account of the Borrower maintained with the Administrative Agent in New York City and designated by the Borrower in the applicable Borrowing Request; provided that ABR Loans made to finance the reimbursement of an LC Disbursement as provided in Section 2.05(e) shall be remitted by the Administrative Agent to the relevant Issuing Bank.

(b) Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any Borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such Borrowing, the Administrative Agent may assume that such Lender has made such share available on such date in accordance with paragraph (a) of this Section and may, in reliance upon such assumption, make available to the Borrower a corresponding amount. In such event, if a Lender has not in fact made its share of the applicable Borrowing available to the Administrative Agent, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at (i) in the case of such Lender, the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation or (ii) in the case of the Borrower, the interest rate applicable to ABR Loans. If such Lender pays such amount to the Administrative Agent, then such amount shall constitute such Lender's Loan included in such Borrowing.

SECTION 2.07. Interest Elections.

(a) Each Borrowing initially shall be of the Type specified in the applicable Borrowing Request and, in the case of a Eurodollar Borrowing, shall have an initial Interest Period as specified in such Borrowing Request. Thereafter, the Borrower may elect to convert such Borrowing to a different Type or to continue such Borrowing and, in the case of a Eurodollar Borrowing, may elect Interest Periods therefor, all as provided in this Section. The Borrower may elect different options with respect to different portions of the affected Borrowing, in which case each such portion shall be allocated ratably among the Lenders holding the Loans comprising such Borrowing, and the Loans comprising each such portion shall be considered a separate Borrowing. This Section shall not apply to Swingline Borrowings, which may not be converted or continued.

(b) To make an election pursuant to this Section, the Borrower shall notify the Administrative Agent of such election by telephone by the time that a Borrowing Request would be required under Section 2.03 if the Borrower were requesting a Borrowing of the Type resulting from such election to be made on the effective date of such election. Each such telephonic Interest Election Request shall be irrevocable and shall be confirmed promptly by

hand delivery or facsimile to the Administrative Agent of a written Interest Election Request in a form approved by the Administrative Agent and signed by the Borrower.

(c) Each telephonic and written Interest Election Request shall specify the following information in compliance with Section 2.02:

- (i) the Borrowing to which such Interest Election Request applies and, if different options are being elected with respect to different portions thereof, the portions thereof to be allocated to each resulting Borrowing (in which case the information to be specified pursuant to clauses (iii) and (iv) below shall be specified for each resulting Borrowing);
- (ii) the effective date of the election made pursuant to such Interest Election Request, which shall be a Business Day;
- (iii) whether the resulting Borrowing is to be an ABR Borrowing or a Eurodollar Borrowing; and
- (iv) if the resulting Borrowing is a Eurodollar Borrowing, the Interest Period to be applicable thereto after giving effect to such election, which shall be a period contemplated by the definition of the term "Interest Period".

If any such Interest Election Request requests a Eurodollar Borrowing but does not specify an Interest Period, then the Borrower shall be deemed to have selected an Interest Period of one month's duration.

(d) Promptly following receipt of an Interest Election Request, the Administrative Agent shall advise each Lender of the details thereof and of such Lender's portion of each resulting Borrowing.

(e) If the Borrower fails to deliver a timely Interest Election Request with respect to a Eurodollar Borrowing prior to the end of the Interest Period applicable thereto, then, unless such Borrowing is repaid as provided herein, at the end of such Interest Period such Borrowing shall be converted to an ABR Borrowing. Notwithstanding any contrary provision hereof, if an Event of Default has occurred and is continuing and the Administrative Agent, at the request of the Required Lenders, so notifies the Borrower, then, so long as an Event of Default is continuing (i) no outstanding Borrowing may be converted to or continued as a Eurodollar Borrowing and (ii) unless repaid, each Eurodollar Borrowing shall be converted to an ABR Borrowing at the end of the Interest Period applicable thereto.

SECTION 2.08. Termination and Reduction of Commitments.

(a) Unless previously terminated, (i) the Multi-Year Facility Commitments shall terminate on the Multi-Year Facility Commitment Termination Date and (ii) the 364-Day Facility Commitments shall terminate on the 364-Day Facility Commitment Termination Date.

(b) The Borrower may at any time terminate, or from time to time reduce, each of the Multi-Year Facility Commitments and/or the 364-Day Facility Commitments; provided that (i) each such reduction shall be in an amount that is an integral multiple of \$1,000,000 and not less than \$5,000,000 and (ii) the Borrower shall not terminate or reduce the Multi-Year Facility Commitments or the 364-Day Facility Commitments, as applicable, if, after giving effect to any concurrent prepayment of the Loans in accordance with Section 2.11, the aggregate Multi-Year Facility Exposures would exceed the total Multi-Year Facility Commitments or the aggregate 364-Day Facility Exposures would exceed the total 364-Day Facility Commitments, as applicable.

(c) The Borrower shall notify the Administrative Agent of any election to terminate or reduce the Commitments under paragraph (b) of this Section at least three Business Days prior to the effective date of such termination or reduction, specifying such election and the effective date thereof. Promptly following receipt of any notice, the Administrative Agent shall advise the Lenders of the contents thereof. Each notice delivered by the Borrower pursuant to this Section shall be irrevocable; provided that a notice of termination of the Commitments delivered by the Borrower may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice may be revoked by the Borrower (by notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. Any termination or reduction of the Commitments shall be permanent. Each reduction of the Multi-Year Facility Commitments shall be made ratably among the Lenders in accordance with their respective Multi-Year Facility Commitments. Each reduction of the 364-Day Facility Commitments shall be made ratably among the Lenders in accordance with their respective 364-Day Facility Commitments.

SECTION 2.09. Increase in Commitments.

(a) Following the Effective Date, the Borrower may at any time and from time to time increase the Multi-Year Facility Commitments (each such increase being a “Commitment Increase”), by notice to the Administrative Agent specifying the existing Lender(s) (the “Increasing Lender(s)”) and/or any other Person(s) selected by the Borrower and reasonably acceptable to the Administrative Agent (the “Assuming Lender(s)”) that have agreed to provide the additional Commitment(s) and the date on which such increase is to be effective (the “Commitment Increase Date”), which shall be a Business Day at least five (5) days after delivery of such notice and prior to the Multi-Year Facility Commitment Termination Date; provided that:

(i) the minimum aggregate amount of each Commitment Increase shall be \$10,000,000;

(ii) immediately after giving effect to such Commitment Increase, the Multi-Year Facility Commitments hereunder shall not exceed \$850,000,000;

(iii) no Event of Default shall have occurred and be continuing on such Commitment Increase Date or shall result from the Commitment Increase; and

(iv) the representations and warranties contained in Article III shall be true and correct in all material respects on and as of the Commitment Increase Date as if made on and as of such date (or, if any such representation and warranty is expressly stated to have been made as of a specific date, such representation and warranty shall be true and correct in all material respects on and as of such specific date).

Notwithstanding the foregoing, nothing herein shall constitute an agreement or commitment by the Administrative Agent or any Lender to any specific increase in the Multi-Year Facility Commitment, which agreement or commitment may only be made at a future date after the applicable Lenders secure any required credit approvals.

(b) Any Assuming Lender shall become a Lender hereunder as of such Commitment Increase Date and the Commitment of any Increasing Lender and any such Assuming Lender shall be increased as of such Commitment Increase Date; provided that:

(i) the Administrative Agent shall have received on or prior to 10:00 a.m., New York City time, on such Commitment Increase Date (A) a certificate of a duly authorized officer of the Borrower stating that each of the applicable conditions to such Commitment Increase set forth in clause (a) of this Section has been satisfied and (B) such certificates as the Administrative Agent or its counsel may reasonably request relating to the organization, existence and good standing of the Borrower, the authorization of the Commitment Increase and any other legal matters relating to the Borrower, this Agreement or the Commitment Increase, all in form and substance satisfactory to the Administrative Agent and its counsel;

(ii) with respect to each Assuming Lender, the Administrative Agent shall have received, on or prior to 10:00 a.m., New York City time, on such Commitment Increase Date, an assumption agreement in substantially the form of Exhibit B (an “Assumption Agreement”) duly executed by such Assuming Lender and consented to by the Borrower and the Administrative Agent; and

(iii) each Increasing Lender shall have delivered to the Administrative Agent, on or prior to 10:00 a.m., New York City time, on such Commitment Increase Date, confirmation in writing reasonably satisfactory to the Administrative Agent as to its increased Commitment, with a copy of such confirmation to the Borrower.

(c) Upon its receipt of confirmation from a Lender that it is increasing its Commitment hereunder, together with the certificates referred to in clause (b)(i) above, the Administrative Agent shall (i) record the information contained therein in the Register and (ii) give prompt notice thereof to the Borrower; provided that absent such Lender’s confirmation of such a Commitment Increase as aforesaid, no Lender will be under any obligation to increase its Commitment hereunder. Upon its receipt of an Assumption Agreement executed by an Assuming Lender, together with the certificates referred to in clause (b)(i) above, the Administrative Agent shall, if such Assumption Agreement has been completed and is in substantially the form of Exhibit B, (x) accept such Assumption Agreement, (y) record the information contained therein in the Register and (z) give prompt notice thereof to the Borrower.

(d) In the event that the Administrative Agent shall have received notice from the Borrower as to any agreement with respect to a Commitment Increase on or prior to the relevant Commitment Increase Date and the actions provided for in clause (b) above shall have occurred by 10:00 a.m., New York City time, on such Commitment Increase Date, the Administrative Agent shall notify the Lenders (including any Assuming Lenders) of the occurrence of such Commitment Increase promptly on such date by facsimile transmission or electronic messaging system. On the date of such Commitment Increase, the Borrower shall, to the extent necessary to ensure the Loans are held ratably by the Lenders in accordance with the respective Multi-Year Facility Commitments of such Lenders (after giving effect to such Commitment Increase) or as otherwise deemed advisable in the sole discretion of the Administrative Agent after consultation with the Borrower, (i) prepay the outstanding Loans (if any) in full, (ii) simultaneously borrow new Loans hereunder in an amount equal to such prepayment and (iii) pay to the Lenders the amounts, if any, payable under Section 2.16.

SECTION 2.10. Repayment of Loans; Evidence of Debt.

(a) The Borrower hereby unconditionally promises to pay (i) to the Administrative Agent for the account of each Lender having any Multi-Year Facility Exposure the then unpaid principal amount of each Multi-Year Facility Loan on the earlier of the Multi-Year Facility Maturity Date and, to the extent that either (x) the Borrower shall have elected such Multi-Year Facility Loan to be due on the 364th date after such Loan is made pursuant to Section 2.03 or (y) the Borrower shall not have elected as to the maturity of such Multi-Year Facility Loan in the Borrowing Request delivered for such Loan, the 364th date after such Multi-Year Facility Loan is made (for the avoidance of doubt, a conversion of a Multi-Year Facility Loan that is a Eurodollar Borrowing to an ABR Borrowing, and vice versa, shall not be deemed to be a new Multi-Year Facility Loan hereunder and shall not reset such 364-day period), (ii) to the Administrative Agent for the account of each Lender the then unpaid principal amount of each 364-Day Facility Loan on the 364-Day Facility Maturity Date and (iii) to the Swingline Lender the then unpaid principal amount of each Swingline Loan on the earlier of the Multi-Year Facility Maturity Date and the first date after such Swingline Loan is made that is the 15th or last day of a calendar month and is at least two Business Days after such Swingline Loan is made; provided that on each date that a Multi-Year Facility Borrowing is made, the Borrower shall repay all Swingline Loans then outstanding.

(b) Each Lender shall maintain in accordance with its usual practice an account or accounts evidencing the indebtedness of the Borrower to such Lender resulting from each Loan made by such Lender, including the amounts of principal and interest payable and paid to such Lender from time to time hereunder.

(c) The Administrative Agent shall maintain accounts in which it shall record (i) the amount of each Loan made hereunder, the Class and Type thereof and the Interest Period applicable thereto, (ii) the amount of any principal or interest due and payable or to become due and payable from the Borrower to each Lender hereunder and (iii) the amount of any sum received by the Administrative Agent hereunder for the account of the Lenders and each Lender's share thereof.

(d) The entries made in the accounts maintained pursuant to paragraph (b) or (c) of this Section shall be prima facie evidence of the existence and amounts of the obligations recorded therein; provided that the failure of any Lender or the Administrative Agent to maintain such accounts or any error therein shall not in any manner affect the obligation of the Borrower to repay the Loans in accordance with the terms of this Agreement.

(e) Any Lender may request that Loans made by it be evidenced by a promissory note. In such event, the Borrower shall prepare, execute and deliver to such Lender a promissory note payable to the order of such Lender (or, if requested by such Lender, to such Lender and its registered assigns) and in a form approved by the Administrative Agent. Thereafter, the Loans evidenced by such promissory note and interest thereon shall at all times (including after assignment pursuant to Section 8.04) be represented by one or more promissory notes in such form payable to the order of the payee named therein (or, if such promissory note is a registered note, to such payee and its registered assigns).

SECTION 2.11. Prepayment of Loans.

(a) The Borrower shall have the right at any time and from time to time to prepay any Borrowing in whole or in part, subject to prior notice in accordance with paragraph (b) of this Section and, with respect to Eurodollar Loans, subject to Section 2.16.

(b) The Borrower shall notify the Administrative Agent (and, in the case of prepayment of a Swingline Loan, the Swingline Lender) by telephone (confirmed by facsimile) of any prepayment hereunder (i) in the case of prepayment of a Eurodollar Borrowing, not later than 11:00 a.m., New York City time, three Business Days before the date of prepayment, (ii) in the case of prepayment of an ABR Borrowing, not later than 11:00 a.m., New York City time, one Business Day before the date of prepayment or (iii) in the case of prepayment of a Swingline Loan, not later than 12:00 noon, New York City time, on the date of prepayment. Each such notice shall be irrevocable and shall specify the prepayment date and the principal amount of each Borrowing or portion thereof to be prepaid; provided that, if a notice of prepayment is given in connection with a conditional notice of termination of the Commitments as contemplated by Section 2.08, then such notice of prepayment may be revoked if such notice of termination is revoked in accordance with Section 2.08. Promptly following receipt of any such notice relating to a Borrowing, the Administrative Agent shall advise the Lenders of the contents thereof. Each partial prepayment of any Borrowing shall be in an amount that would be permitted in the case of an advance of a Borrowing of the same Type. Each prepayment of a Borrowing shall be applied ratably to the Loans included in the prepaid Borrowing. Prepayments shall be accompanied by accrued interest to the extent required by Section 2.13.

SECTION 2.12. Fees.

(a) The Borrower agrees to pay to the Administrative Agent for the account of each Lender which is not then, and excluding any period during which such Lender was, a Defaulting Lender a facility fee, which shall accrue at the Applicable Margin on the daily amount of the Commitment of such Lender (whether used or unused) during the period from and including the Effective Date to but excluding the Multi-Year Facility Commitment Termination Date and the

364-Day Facility Commitment Termination Date, as applicable; provided that, if such Lender continues to have any Multi-Year Facility Exposure after the Multi-Year Facility Commitment Termination Date or 364-Day Facility Exposure after the 364-Day Facility Commitment Termination Date, as applicable, then such facility fee shall continue to accrue on the daily amount of such Lender's Multi-Year Facility Exposure or 364-Day Facility Exposure, as applicable, from and including the Multi-Year Facility Commitment Termination Date or the 364-Day Facility Commitment Termination Date, as applicable, to but excluding the date on which such Lender ceases to have any Multi-Year Facility Exposure or 364-Day Facility Exposure, as applicable. Accrued facility fees shall be payable in arrears on the last day of March, June, September and December of each year and on the Multi-Year Facility Commitment Termination Date and the 364-Day Facility Commitment Termination Date, as applicable, commencing on the first such date to occur after the date hereof; provided that any facility fees accruing after the Multi-Year Facility Commitment Termination Date or the 364-Day Facility Commitment Termination Date, as applicable, shall be payable on demand. All such facility fees shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day).

(b) The Borrower agrees to pay (i) to the Administrative Agent for the account of each Lender a participation fee with respect to its participations in Letters of Credit, which shall accrue at the same Applicable Margin used to determine the interest rate applicable to Eurodollar Loans on the average daily amount of such Lender's LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the Multi-Year Facility Commitment Termination Date and the date on which such Lender ceases to have any LC Exposure, and (ii) to the Issuing Banks, pro rata in accordance with the LC Exposure attributable to each, a fronting fee, which shall accrue at the rate of 0.125% per annum on the average daily amount of the LC Exposure (excluding any portion thereof attributable to unreimbursed LC Disbursements) during the period from and including the Effective Date to but excluding the later of the Multi-Year Facility Commitment Termination Date and the date on which there ceases to be any LC Exposure, as well as the Issuing Bank's standard fees with respect to the issuance, amendment, renewal or extension of any Letter of Credit or processing of drawings thereunder. Participation fees and fronting fees accrued through and including the last day of March, June, September and December of each year shall be payable on the third Business Day following such last day, commencing on the first such date to occur after the Effective Date; provided that all such fees shall be payable on the Multi-Year Facility Commitment Termination Date and any such fees accruing after the Multi-Year Facility Commitment Termination Date shall be payable on demand. Any other fees payable to the Issuing Bank pursuant to this paragraph shall be payable within 10 days after demand. All participation fees and fronting fees shall be computed on the basis of a year of 360 days and shall be payable for the actual number of days elapsed (including the first day but excluding the last day).

(c) The Borrower agrees to pay to the Administrative Agent, for its own account, fees payable in the amounts and at the times separately agreed upon between the Borrower and the Administrative Agent.

(d) All fees payable hereunder shall be paid on the dates due, in immediately available funds, to the Administrative Agent (or to the relevant Issuing Banks, in the case of fees payable to them) for distribution, in the case of facility fees and participation fees, to the Lenders which are not then Defaulting Lenders and excluding, for each such Lender, any period during which such Lender was a Defaulting Lender. Fees paid shall not be refundable under any circumstances.

SECTION 2.13. Interest.

(a) The Loans comprising each ABR Borrowing (including each Swingline Loan) shall bear interest at the Alternate Base Rate plus the Applicable Margin.

(b) The Loans comprising each Eurodollar Borrowing shall bear interest at the Adjusted LIBO Rate for the Interest Period in effect for such Borrowing plus the Applicable Margin.

(c) Notwithstanding the foregoing, if any principal of or interest on any Loan or any fee or other amount payable by the Borrower hereunder is not paid when due, whether at stated maturity, upon acceleration or otherwise, such overdue amount shall bear interest, after as well as before judgment, at a rate per annum equal to (i) in the case of overdue principal of any Loan, 2% plus the rate otherwise applicable to such Loan as provided in the preceding paragraphs of this Section or (ii) in the case of any other amount, 2% plus the rate applicable to ABR Loans as provided in paragraph (a) of this Section.

(d) The Borrower hereby unconditionally promises to pay accrued interest on each Loan in arrears (x) on each Interest Payment Date for such Loan and, (y) for Multi-Year Facility Loans, upon each of the Multi-Year Facility Commitment Termination Date and the Multi-Year Facility Maturity Date, and (z) for 364-Day Facility Loans, on the 364-Day Facility Commitment Termination Date and the 364-Day Facility Maturity Date; provided that (i) interest accrued pursuant to paragraph (c) of this Section shall be payable on demand, (ii) in the event of any repayment or prepayment of any Loan (other than a prepayment of an ABR Loan prior to the end of the Multi-Year Facility Availability Period or the 364-Day Facility Availability Period, as applicable), accrued interest on the principal amount repaid or prepaid shall be payable on the date of such repayment or prepayment and (iii) in the event of any conversion of any Eurodollar Loan prior to the end of the current Interest Period therefor, accrued interest on such Loan shall be payable on the effective date of such conversion.

(e) All interest hereunder shall be computed on the basis of a year of 360 days, except that interest computed by reference to the Alternate Base Rate at times when the Alternate Base Rate is based on the Prime Rate shall be computed on the basis of a year of 365 days (or 366 days in a leap year), and in each case shall be payable for the actual number of days elapsed (including the first day but excluding the last day). The applicable Alternate Base Rate, Adjusted LIBO Rate or LIBO Rate shall be determined by the Administrative Agent, and such determination shall be conclusive absent manifest error.

SECTION 2.14. Alternate Rate of Interest. If prior to the commencement of any Interest Period for a Eurodollar Borrowing:

(a) the Administrative Agent determines (which determination shall be conclusive absent manifest error) that adequate and reasonable means do not exist for ascertaining the Adjusted LIBO Rate or the LIBO Rate, as applicable, for such Interest Period; or

(b) the Administrative Agent is advised by the Required Lenders that the Adjusted LIBO Rate or the LIBO Rate, as applicable, for such Interest Period will not adequately and fairly reflect the cost to such Lenders of making or maintaining their Loans included in such Borrowing for such Interest Period;

then the Administrative Agent shall give notice thereof to the Borrower and the Lenders by telephone or facsimile as promptly as practicable thereafter and, until the Administrative Agent notifies the Borrower and the Lenders that the circumstances giving rise to such notice no longer exist, (i) any Interest Election Request that requests the conversion of any Borrowing to, or continuation of any Borrowing as, a Eurodollar Borrowing shall be ineffective and (ii) if any Borrowing Request requests a Eurodollar Borrowing, such Borrowing shall be made as an ABR Borrowing; provided that if the circumstances giving rise to such notice affect only one Type of Borrowings, then the other Type of Borrowings shall be permitted.

SECTION 2.15. Increased Costs. If any Change in Law shall (i) impose, modify or deem applicable any reserve, special deposit, liquidity or similar requirement (including any compulsory loan requirement, insurance charge or other assessment) against assets of, deposits with or for the account of, or credit extended by, any Lender (except any such reserve requirement reflected in the Adjusted LIBO Rate) or any Issuing Bank; (ii) impose on any Lender or the Issuing Bank or the London interbank market any other condition, cost or expense (other than Taxes) affecting this Agreement or Loans made by such Lender or any Letter of Credit or participation therein; or (iii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto; and the result of any of the foregoing shall be to increase the cost to such Lender or such other Recipient of making, continuing, converting or maintaining any Eurodollar Loan (or of maintaining its obligation to make any such Loan) or to increase the cost to such Lender, such Issuing Bank or such other Recipient of participating in, issuing or maintaining any Letter of Credit or to reduce the amount of any sum received or receivable by such Lender, such Issuing Bank or such other Recipient hereunder (whether of principal, interest or otherwise) by an amount deemed material by such Lender, then the Borrower will pay to such Lender, such Issuing Bank or such other Recipient, as the case may be, such additional amount or amounts as will compensate such Lender, such Issuing Bank or such other Recipient, as the case may be, for such additional costs incurred or reduction suffered.

(a) If any Lender or any Issuing Bank reasonably determines in good faith that any Change in Law regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's or such Issuing Bank's capital or on the capital of such Lender's or such Issuing Bank's holding company, if any, as a consequence of this

Agreement or the Loans made by or participations in Letters of Credit held by such Lender or the Letters of Credit issued by such Issuing Bank to a level below that which such Lender or such Issuing Bank or such Lender's or such Issuing Bank's holding company could have achieved but for such Change in Law (taking into consideration such Lender's or such Issuing Bank's policies and the policies of such Lender's or such Issuing Bank's holding company with respect to capital adequacy and liquidity), then from time to time the Borrower will pay to such Lender or such Issuing Bank, as the case may be such additional amount or amounts as will compensate such Lender or such Issuing Bank or such Lender's or such Issuing Bank's holding company for any such reduction suffered; provided that such Lender is generally seeking compensation from similarly situated borrowers under similar credit facilities (to the extent such Lender has the right under such similar credit facilities to do so) with respect to such Change in Law regarding capital or liquidity requirements.

(b) A certificate of a Lender or of an Issuing Bank setting forth the amount or amounts (including the basis of the calculation used to determine such amount or amounts) necessary to compensate such Lender or such Issuing Bank or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay such Lender or such Issuing Bank, as the case may be, the amount shown as due on any such certificate within 10 days after receipt thereof.

(c) Failure or delay on the part of any Lender or any Issuing Bank to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's or such Issuing Bank's right to demand such compensation; provided that the Borrower shall not be required to compensate a Lender or an Issuing Bank pursuant to this Section for any increased costs or reductions incurred more than 180 days prior to the date that such Lender or such Issuing Bank, as the case may be, notifies the Borrower of the Change in Law giving rise to such increased costs or reductions and of such Lender's or such Issuing Bank's intention to claim compensation therefor; provided further that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the 180-day period referred to above shall be extended to include the period of retroactive effect thereof.

SECTION 2.16. Break Funding Payments. In the event of (a) the payment of any principal of any Eurodollar Loan other than on the last day of an Interest Period applicable thereto (including as a result of an Event of Default), (b) the conversion of any Eurodollar Loan other than on the last day of the Interest Period applicable thereto, (c) the failure to borrow, convert, continue or prepay any Eurodollar Loan on the date specified in any notice delivered pursuant hereto (regardless of whether such notice may be revoked under Section 2.11(b) and is revoked in accordance therewith), or (d) the assignment of any Eurodollar Loan other than on the last day of the Interest Period applicable thereto as a result of a request by the Borrower pursuant to Section 2.19, then, in any such event, the Borrower shall compensate each Lender for the loss, cost and expense attributable to such event. In the case of a Eurodollar Loan, such loss, cost or expense to any Lender shall be deemed to include an amount reasonably determined by such Lender to be the excess, if any, of (i) the amount of interest which would have accrued on the principal amount of such Loan had such event not occurred, at the Adjusted LIBO Rate that would have been applicable to such Loan, for the period from the date of such event to the last day of the then current Interest Period therefor (or, in the case of a failure to borrow, convert or

continue, for the period that would have been the Interest Period for such Loan), over (ii) the amount of interest which would accrue on such principal amount for such period at the interest rate which such Lender would bid were it to bid, at the commencement of such period, for dollar deposits of a comparable amount and period from other banks in the eurodollar market. A certificate of any Lender setting forth any amount or amounts (including the basis of the calculation used to determine such amount or amounts) that such Lender is entitled to receive pursuant to this Section shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay such Lender the amount shown as due on any such certificate within 10 days after receipt thereof.

SECTION 2.17. Taxes.

(a) Withholding Taxes; Gross-Up. Each payment by the Borrower or on account of any obligation of the Borrower under this Agreement shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any Withholding Agent determines, in its sole discretion exercised in good faith, that it is so required to withhold Taxes, then such Withholding Agent may so withhold and shall timely pay the full amount of withheld taxes to the relevant Governmental Authority in accordance with applicable law. If such Taxes are Indemnified Taxes, then the amount payable by the Borrower shall be increased as necessary so that, net of such withholding of Indemnified Taxes (including withholding applicable to additional amounts payable under this Section) the applicable Recipient receives the amount it would have received had no such withholding of Indemnified Taxes been made.

(b) Payment of Other Taxes by the Borrower. The Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with applicable law.

(c) Evidence of Payment. As soon as practicable after any payment of Indemnified Taxes by the Borrower to a Governmental Authority, the Borrower shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(d) Indemnification by the Borrower. Without duplication of any payment made pursuant to Section 2.17(a) above, the Borrower shall indemnify each Recipient for any Indemnified Taxes that are paid or payable by such Recipient in connection with this Agreement (including amounts paid or payable under this Section 2.17(d)) and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. The indemnity under this Section 2.17(d) shall be paid within 10 days after the Recipient delivers to the Borrower a certificate stating the amount of any Indemnified Taxes so paid or payable by such Recipient and describing the basis for the indemnification claim. Such certificate shall be conclusive of the amount so paid or payable absent manifest error. Such Recipient shall deliver a copy of such certificate to the Administrative Agent.

(e) Indemnification by the Lenders. Each Lender shall severally indemnify the Administrative Agent for (i) any Indemnified Taxes, attributable to such Lender (but only to the extent that the Borrower has not already indemnified the Administrative Agent for such

Indemnified Taxes and without limiting the obligation of the Borrower to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 9.04(c) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case that are paid or payable by the Administrative Agent in connection with this Agreement and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. The indemnity under this Section 2.17(e) shall be paid within 10 days after the Administrative Agent or the Borrower (as applicable) delivers to the applicable Lender a certificate stating the amount of Taxes so paid or payable by the Administrative Agent or the Borrower (as applicable). Such certificate shall be conclusive of the amount so paid or payable absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under this Agreement or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this Section 2.17(e).

(f) Status of Lenders.

(i) Any Lender that is entitled to an exemption from, or reduction of, any applicable withholding Tax with respect to any payments under this Agreement shall deliver to the Borrower and the Administrative Agent, at the time or times reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without, or at a reduced rate of, withholding. In addition, any Lender shall deliver such other documentation prescribed by law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to any withholding (including backup withholding) or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Section 2.17(f)(ii)(A) through (E) below) shall not be required if in the Lender's judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender. Upon the reasonable request of Borrower or the Administrative Agent, any Lender shall update any form or certification previously delivered pursuant to this Section 2.17(f). If any form or certification previously delivered pursuant to this Section expires or becomes obsolete or inaccurate in any respect with respect to a Lender, such Lender shall promptly (and in any event within 10 days after such expiration, obsolescence or inaccuracy) notify such Borrower and the Administrative Agent in writing of such expiration, obsolescence or inaccuracy and update the form or certification if it is legally eligible to do so.

(ii) Without limiting the generality of the foregoing, if the Borrower is a U.S. Person, any Lender with respect to such Borrower shall, if it is legally eligible to do so, deliver to such Borrower and the Administrative Agent (in such number of copies reasonably requested by such Borrower and the Administrative Agent) on or prior to the

date on which such Lender becomes a party hereto, duly completed and executed copies of whichever of the following is applicable:

(A) in the case of a Lender that is a U.S. Person, IRS Form W-9 certifying that such Lender is exempt from U.S. Federal backup withholding tax;

(B) in the case of a Non-U.S. Lender claiming the benefits of an income tax treaty to which the United States is a party (1) with respect to payments of interest under this Agreement, IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the “interest” article of such tax treaty and (2) with respect to any other applicable payments under this Agreement, IRS Form W-8BEN-E or IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. Federal withholding Tax pursuant to the “business profits” or “other income” article of such tax treaty;

(C) in the case of a Non-U.S. Lender for whom payments under this Agreement constitute income that is effectively connected with such Lender’s conduct of a trade or business in the United States, IRS Form W-8ECI;

(D) in the case of a Non-U.S. Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code both (1) IRS Form W-8BEN-E or IRS and (2) a certificate substantially in the form of Exhibit C (a “U.S. Tax Certificate”) to the effect that such Lender is not (a) a “bank” within the meaning of Section 881(c)(3)(A) of the Code, (b) a “10 percent shareholder” of the Borrower within the meaning of Section 881(c)(3)(B) of the Code (c) a “controlled foreign corporation” described in Section 881(c)(3)(C) of the Code and (d) conducting a trade or business in the United States with which the relevant interest payments are effectively connected;

(E) in the case of a Non-U.S. Lender that is not the beneficial owner of payments made under this Agreement (including a partnership or a participating Lender) (1) an IRS Form W-8IMY on behalf of itself and (2) the relevant forms prescribed in clauses (A), (B), (C), (D) and (F) of this paragraph (f)(ii) that would be required of each such beneficial owner or partner of such partnership if such beneficial owner or partner were a Lender; provided, however, that if the Lender is a partnership and one or more of its partners are claiming the exemption for portfolio interest under Section 881(c) of the Code, such Lender may provide a U.S. Tax Certificate on behalf of such partners; or

(F) any other form prescribed by law as a basis for claiming exemption from, or a reduction of, U.S. Federal withholding Tax together with such supplementary documentation necessary to enable the Borrower or the Administrative Agent to determine the amount of Tax (if any) required by law to be withheld.

(iii) If a payment made to or for the account of a Lender under this Agreement would be subject to U.S. Federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Withholding Agent, at the time or times prescribed by law and at such time or times reasonably requested by the Withholding Agent, such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Withholding Agent as may be necessary for the Withholding Agent to comply with its obligations under FATCA, to determine that such Lender has or has not complied with such Lender's obligations under FATCA and, as necessary, to determine the amount to deduct and withhold from such payment.

(g) Treatment of Certain Refunds. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 2.17 (including additional amounts paid pursuant to this Section 2.17), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including any Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid such indemnified party pursuant to the previous sentence (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything herein to the contrary in this Section 2.17(g), in no event will any indemnified party be required to pay any amount to any indemnifying party pursuant to this Section 2.17(g) if such payment would place such indemnified party in a less favorable position (on a net after-Tax basis) than such indemnified party would have been in if the indemnification payments or additional amounts giving rise to such refund had never been paid. This Section 2.17(g) shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes which it deems confidential) to the indemnifying party or any other Person.

(h) Issuing Bank. For purposes of Section 2.17(e) and (f), the term "Lender" includes any Issuing Bank.

(i) FATCA Matters. For purposes of determining withholding Taxes imposed under FATCA, from and after the Effective Date, the Borrower and the Administrative Agent shall treat (and the Lenders hereby authorize the Administrative Agent to treat) this Agreement and the Loans as not qualifying as "grandfathered obligations" within the meaning of Treasury Regulation Section 1.1471-2(b)(2)(i).

SECTION 2.18. Payments Generally; Pro Rata Treatment; Sharing of Setoffs.

(a) Except as otherwise provided by Section 2.17(a), the Borrower shall make each payment required to be made by it hereunder (whether of principal, interest, fees, or

reimbursement of LC Disbursements, or of amounts payable under Section 2.15, 2.16 or 2.17, or otherwise) prior to 12:00 noon, New York City time, on the date when due, in immediately available funds, without set-off or counterclaim. Any amounts received after such time on any date may, in the discretion of the Administrative Agent, be deemed to have been received on the next succeeding Business Day for purposes of calculating interest thereon. All such payments shall be made to the Administrative Agent at its offices at 270 Park Avenue, New York, New York, except payments to be made directly to an Issuing Bank or Swingline Lender as expressly provided herein and except that payments pursuant to Sections 2.15, 2.16, 2.17 and 8.03 shall be made directly to Persons entitled thereto. The Administrative Agent shall distribute any such payments received by it for the account of any other Person to the appropriate recipient promptly following receipt thereof. If any payment hereunder shall be due on a day that is not a Business Day, the date for payment shall be extended to the next succeeding Business Day, and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension. All payments hereunder shall be made in dollars.

(b) If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, unreimbursed LC Disbursements, interest and fees then due hereunder, such funds shall be applied (i) first, towards payment of interest and fees then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and (ii) second, towards payment of principal and unreimbursed LC Disbursements then due hereunder, ratably among the parties entitled thereto in accordance with the amounts of principal and unreimbursed LC Disbursements then due to such parties.

(c) If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Loans, participations in LC Disbursements or participations in Swingline Loans resulting in such Lender receiving payment of a greater proportion of the aggregate amount of its Loans, participations in LC Disbursements or participations in Swingline Loans and accrued interest thereon than the proportion received by any other Lender, then the Lender receiving such greater proportion shall purchase (for cash at face value) participations in the Loans or participations in LC Disbursements or Swingline Loans of other Lenders to the extent necessary so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Loans, participations in LC Disbursements and participations in Swingline Loans; provided that (i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and (ii) the provisions of this paragraph shall not be construed to apply to any payment made by the Borrower pursuant to and in accordance with the express terms of this Agreement or any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Loans or participations in LC Disbursements to any assignee or participant, other than to the Borrower or any Subsidiary or Affiliate thereof (as to which the provisions of this paragraph shall apply). The Borrower consents to the foregoing and agrees, to the extent it may effectively do so under applicable law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against the Borrower rights of set-off and counterclaim with respect to such participation as

fully as if such Lender were a direct creditor of the Borrower in the amount of such participation.

(d) Unless the Administrative Agent shall have received notice from the Borrower prior to the date on which any payment is due to the Administrative Agent for the account of the Lenders or one or more Issuing Banks hereunder that the Borrower will not make such payment, the Administrative Agent may assume that the Borrower has made such payment on such date in accordance herewith and may, in reliance upon such assumption, distribute to the Lenders or Issuing Banks, as the case may be, the amount due. In such event, if the Borrower has not in fact made such payment, then each of the Lenders and relevant Issuing Banks, as the case may be, severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Lender or Issuing Bank with interest thereon, for each day from and including the date such amount is distributed to it to but excluding the date of payment to the Administrative Agent, at the greater of the Federal Funds Effective Rate and a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation.

(e) If any Lender shall fail to make any payment required to be made by it pursuant to Section 2.04(c), 2.05(d), 2.05(e), 2.06(b), 2.18(d) or 8.03(c), then the Administrative Agent may, in its discretion (or shall in the event such Lender becomes a Defaulting Lender) and notwithstanding any contrary provision hereof, (i) apply any amounts thereafter received by the Administrative Agent for the account of such Lender to satisfy such Lender's obligations under such Sections until all such unsatisfied obligations are fully paid, and/or (ii) hold such amounts in a segregated account over which the Administrative Agent shall have exclusive control as Cash Collateral for, and application to, any future funding obligation of such Lender under any such Section, in the case of each of clause (i) and (ii) above in any order as determined by the Administrative Agent in its discretion.

SECTION 2.19. Mitigation Obligations; Replacement of Lenders.

(a) If any Lender requests compensation under Section 2.15, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.17, then such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 2.15 or 2.17, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender. The Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment.

(b) If any Lender requests compensation under Section 2.15, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 2.17, or if any Lender shall be a Defaulting Lender, or if, in connection with any proposed waiver, amendment or modification of this Agreement, the consent of the Required Lenders is obtained but the consent of any Lender whose consent is requested is not obtained, then the Borrower may, at its sole expense and effort, upon notice to

such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in Section 8.04), all its interests, rights and obligations under this Agreement to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment); provided, that (i) the Borrower shall have received the prior written consent of the Administrative Agent (and if a Multi-Year Facility Commitment is being assigned, each Issuing Bank), which consent shall not unreasonably be withheld, (ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Loans and participations in LC Disbursements and Swingline Loans, accrued interest thereon, accrued fees and all other amounts payable to it hereunder, from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts) and (iii) in the case of any such assignment resulting from a claim for compensation under Section 2.15 or payments required to be made pursuant to Section 2.17, such assignment could be reasonably expected to result in a reduction in such compensation or payments. A Lender shall not be required to make any such assignment and delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

SECTION 2.20. Defaulting Lenders. Notwithstanding any provision of this Agreement to the contrary, if any Lender becomes a Defaulting Lender, then the following provisions shall apply for so long as such Lender is a Defaulting Lender:

- (a) fees shall cease to accrue on the Commitment of such Defaulting Lender pursuant to Section 2.12(a);
- (b) the Commitment and Multi-Year Facility Exposures of such Defaulting Lender shall not be included in determining whether the Required Lenders have taken or may take any action hereunder (including any consent to any amendment, waiver or other modification pursuant to Section 8.02); provided, that this clause (b) shall not apply to the vote of a Defaulting Lender in the case of an amendment, waiver or other modification requiring the consent of such Lender or each Lender affected thereby;
- (c) if any Swingline Exposure or LC Exposure exists at the time such Lender becomes a Defaulting Lender then:
 - (i) all or any part of the Swingline Exposure and LC Exposure of such Defaulting Lender (other than the portion of such Swingline Exposure referred to in clause (b) of the definition of such term) shall be reallocated among the non-Defaulting Lenders in accordance with their respective Applicable Percentages but only to the extent that (x) the sum of all non-Defaulting Lenders' Multi-Year Facility Exposures plus such Defaulting Lender's Swingline Exposure and LC Exposure does not exceed the total of all non-Defaulting Lenders' Commitments and (y) the conditions set forth in Section 4.02 are satisfied at the time of such reallocation. No reallocation hereunder shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Lender arising from that Lender having become a Defaulting Lender, including any claim of a non-

Defaulting Lender as a result of such non-Defaulting Lender's increased exposure following such reallocation;

(ii) if the reallocation described in clause (i) above cannot, or can only partially, be effected, the Borrower shall, without prejudice to any right or remedy available to it hereunder or under law, within one Business Day following notice by the Administrative Agent (x) first, prepay such Defaulting Lender's Swingline Exposure and (y) second, Cash Collateralize for the benefit of the Issuing Bank only the Borrower's obligations corresponding to such Defaulting Lender's LC Exposure (after giving effect to any partial reallocation pursuant to clause (i) above and any Cash Collateral provided by such Defaulting Lender) in accordance with the procedures set forth in Section 2.05(j) for so long as such LC Exposure is outstanding;

(iii) if the Borrower Cash Collateralizes any portion of such Defaulting Lender's LC Exposure pursuant to clause (ii) above, the Borrower shall not be required to pay any fees to such Defaulting Lender pursuant to Section 2.12(b) with respect to such Defaulting Lender's LC Exposure during the period such Defaulting Lender's LC Exposure is Cash Collateralized;

(iv) if the LC Exposure of the non-Defaulting Lenders is reallocated pursuant to clause (i) above, then the fees payable to the Lenders pursuant to Section 2.12(a) and Section 2.12(b) shall be adjusted in accordance with such non-Defaulting Lenders' Applicable Percentages; and

(v) if all or any portion of such Defaulting Lender's LC Exposure is neither reallocated nor Cash Collateralized pursuant to clause (i) or (ii) above, then, without prejudice to any rights or remedies of any Issuing Bank or any other Lender hereunder, all facility fees that otherwise would have been payable to such Defaulting Lender (solely with respect to the portion of such Defaulting Lender's Commitment that was utilized by such LC Exposure) and letter of credit fees payable under Section 2.12(b) with respect to such Defaulting Lender's LC Exposure shall be payable to the relevant Issuing Banks, on a pro rata basis, until and to the extent that such LC Exposure is reallocated and/or Cash Collateralized; and

(d) so long as such Lender is a Defaulting Lender, the Swingline Lender shall not be required to fund any Swingline Loan and no Issuing Bank shall be required to issue, amend or increase any Letter of Credit, unless it is satisfied that the related exposure and the Defaulting Lender's then outstanding LC Exposure will be 100% covered by the Multi-Year Facility Commitments of the non-Defaulting Lenders and/or Cash Collateral in the full amount of the related exposure and the Defaulting Lender's then outstanding LC Exposure as of such date plus any accrued and unpaid interest thereon will be provided by the Borrower in accordance with Section 2.20(c), and Swingline Exposure related to any newly made Swingline Loan or LC Exposure related to any newly issued or increased Letter of Credit shall be allocated among non-Defaulting Lenders in a manner consistent with Section 2.20(c)(i) (and such Defaulting Lender shall not participate therein).

If (i) a Bankruptcy Event or a Bail-In Action with respect to the Parent of any Lender shall occur following the date hereof and for so long as such event shall continue or (ii) the Issuing Bank or the Swingline Lender has a good faith belief that any Lender has defaulted in fulfilling its obligations under one or more other agreements in which such Lender commits to extend credit, (in each case, an “ Affected Lender ”) the Issuing Bank shall not be required to issue, amend or increase any Letter of Credit and the Swingline Lender shall not be required to fund any Swingline Loan, unless the Issuing Bank or the Swingline Lender, as the case may be, shall have entered into arrangements with the Borrower or such Affected Lender or the other Lenders, satisfactory to the Issuing Bank or the Swingline Lender, as the case may be, to defease any risk in respect of such Affected Lender hereunder, which the parties agree may include the Issuing Bank’s or the Swingline Lender’s, as the case may be, satisfaction that the related exposure and such Affected Lender’s then outstanding Swingline Exposure or LC Exposure will be 100% covered by the Multi-Year Facility Commitments of Lenders that are not either Defaulting Lenders or Affected Lenders, and participating interests in any such newly issued or increased Letter of Credit or newly made Swingline Loan shall be allocated among the Lenders which are not Defaulting Lenders or Affected Lenders in a manner consistent with Section 2.20(c) (in which case, such Affected Lender shall not participate therein) and/or Cash Collateral will be provided by the Borrower in accordance with Section 2.20(c) in the full amount of the Swingline Exposure and the LC Exposure of the Affected Lender as of such date plus any accrued and unpaid interest thereon.

In the event that the Administrative Agent, the Borrower, the Swingline Lender and each Issuing Bank each agrees that a Defaulting Lender has adequately remedied all matters that caused such Lender to be a Defaulting Lender, then the Swingline Exposure and LC Exposure of the Lenders shall be readjusted to reflect the inclusion of such Lender’s Commitment and on such date such Lender shall purchase at par such of the Loans of the other Lenders (other than Swingline Loans) as the Administrative Agent shall determine may be necessary in order for such Lender to hold such Loans in accordance with its Applicable Percentage.

ARTICLE III

Representations and Warranties

The Borrower represents and warrants to the Lenders that:

SECTION 3.01. Corporate Existence. Each of the Borrower and its Material Subsidiaries: (a) is a corporation, partnership or other entity duly incorporated or organized, as the case may be, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization; (b) has all requisite corporate power and, except where the failure to do so could not reasonably be expected to have a Material Adverse Effect, all Governmental Approvals in each case necessary to own its assets and carry on its business as now being conducted; and (c) is qualified to do business and is in good standing in all jurisdictions in which the nature of the business conducted by it makes such qualification necessary and where failure to so qualify could reasonably be expected to have a Material Adverse Effect.

SECTION 3.02. Financial Condition. The Borrower has heretofore furnished to each of the Lenders the satisfactory audited consolidated balance sheet of the Borrower and its consolidated Subsidiaries as at September 30, 2013, September 30, 2014 and September 30, 2015 and the related consolidated statement of income and retained earnings and cash flow of the Borrower and its consolidated Subsidiaries for the fiscal years ended on said dates, with the opinions thereon (in the case of said consolidated balance sheets and statements) of PricewaterhouseCoopers LLP. All such financial statements are complete and correct in all material respects and fairly present in all material respects the consolidated financial condition of the Borrower and its consolidated Subsidiaries at and as of such dates, all in accordance with GAAP and practices applied on a consistent basis. None of the Borrower nor any of its Subsidiaries has on the date hereof any material contingent liabilities, liabilities for taxes, unusual forward or long-term commitments or unrealized or anticipated losses from any unfavorable commitments, except as referred to or reflected or provided for in said balance sheets as at said dates. Since September 30, 2015, there has been no material adverse change. As used herein, the term “material adverse change” shall mean any event, development or circumstance that has had or could reasonably be expected to have a Material Adverse Effect; provided that “material adverse change” shall not include the effect of any event, development or circumstance disclosed in any document filed pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934 after September 30, 2015 and prior to the Effective Date to the extent, and only to the extent, such effect is explicitly disclosed in such filings.

SECTION 3.03. Litigation. Except as disclosed in the Borrower’s Annual Report on SEC Form 10-K for the year ended September 30, 2015 or in any document subsequently filed pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934, there are no legal or arbitral proceedings, or any proceedings by or before any governmental or regulatory authority or agency, now pending to which the Borrower or any Material Subsidiary is a party, or pending or threatened (of which any officer of the Borrower has knowledge), in which there is a reasonable possibility of an adverse decision and which could reasonably be expected to have a Material Adverse Effect.

SECTION 3.04. No Breach. None of the execution and delivery of this Agreement, the consummation of the Transactions or compliance with the terms and provisions hereof will conflict with or result in a breach of, or require any consent under (i) the articles of incorporation or by-laws of the Borrower, or (ii) any applicable law or regulation, or, to the best knowledge of the Borrower, any order, writ, injunction or decree of any court or governmental or regulatory authority, agency, instrumentality or political subdivision thereof, or any material agreement or instrument to which the Borrower or any of its Subsidiaries is a party or by which any of them or any of their property is bound or to which any of them or any of their property is subject, or constitute a default under any such agreement or instrument, which conflict, breach or consent requirement referred to in this clause (ii), including any failure to obtain any such consent, individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect. No Default has occurred and is continuing.

SECTION 3.05. Action. The Borrower has all necessary corporate power, authority and legal right to execute, deliver and perform its obligations under this Agreement; the execution, delivery and performance by the Borrower of this Agreement have been duly authorized by all necessary corporate action on its part (including, without limitation, any

required shareholder approvals); and this Agreement has been duly and validly executed and delivered by the Borrower and constitutes its legal, valid and binding obligation, enforceable against the Borrower in accordance with its terms, except as such enforceability may be limited by (a) bankruptcy, insolvency, reorganization, moratorium or similar laws of general applicability affecting the enforcement of creditors' rights and (b) the application of general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

SECTION 3.06. Approvals. No Governmental Approval and no authorization, approval or consent of, and no filing or registration with, any securities exchange, is necessary for the execution, delivery or performance by the Borrower of this Agreement or for the legality, validity or enforceability hereof.

SECTION 3.07. Use of Credit. Neither the Borrower nor any of its Subsidiaries shall, directly or indirectly, use any of the proceeds of any extension of credit hereunder for any purpose, whether immediate, incidental, or ultimate, of buying a "margin stock" or of maintaining, reducing or retiring any indebtedness originally incurred to purchase a stock that is currently a "margin stock" and the extension of credit hereunder will not constitute an extension of "purpose credit" that is directly or indirectly secured by "margin stock", in each case within the meaning of Regulation U of the Board of Governors of the United States Federal Reserve System Board (12 C.F.R. 221, as amended), and will not violate or result in the violation of Regulation U or of Regulation T (12 C.F.R. 220, as amended) or of Regulation X (12 C.F.R. 224, as amended) or any other regulation of such Board.

SECTION 3.08. ERISA. No ERISA Event has occurred or is reasonably expected to occur that, when taken together with all other such ERISA Events for which liability is reasonably expected to occur, would reasonably be expected to result in a Material Adverse Effect.

SECTION 3.09. Taxes. Each of the Borrower and each of its Subsidiaries has filed or caused to be filed all material Federal, state and other tax returns that are required to be filed and has paid all Taxes shown to be due and payable on such returns or on any assessments made against it or any of its property and all other Taxes imposed on it or any of its property by any Governmental Authority, other than any Taxes the amount or validity of which is currently being contested in good faith by appropriate proceeding and with respect to which reserves in conformity with GAAP have been provided on the books of the Borrower or its Subsidiaries, as the case may be and other than to the extent that the failure to file any such tax returns or pay any such Tax could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect. No material Tax Lien has been filed and, to the knowledge of the Borrower, no material claim is being asserted with respect to any such Tax other than any Tax Lien which relates to any Tax that is not yet due and payable, and other than to the extent that any such Tax could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

SECTION 3.10. Investment Company Act. Neither the Borrower nor any of its Subsidiaries is an "investment company", or a company "controlled" by an "investment company", within the meaning of the Investment Company Act of 1940, as amended.

SECTION 3.11. Environmental Matters. As of the date of this Agreement: (i) each of the Borrower and its Subsidiaries has obtained all environmental, health and safety permits, licenses and other authorizations required under all Environmental Laws to carry on its business as now being conducted, except to the extent failure to have any such permit, license or authorization would not have a Material Adverse Effect; and (ii) each of such permits, licenses and authorizations is in full force and effect and, to the knowledge of the Borrower, each of the Borrower and its Subsidiaries is in compliance with the terms and conditions thereof, and is also in compliance with all other limitations, restrictions, conditions, standards, prohibitions, requirements, obligations, schedules and timetables contained in any applicable Environmental Law or in any regulation, code, plan, order, decree, judgment, injunction, notice or demand letter issued, entered, promulgated or approved thereunder, in each case, except to the extent failure to comply therewith would not have a Material Adverse Effect.

SECTION 3.12. Subsidiaries, Etc.. The Borrower owns, free and clear of Liens, and has the unencumbered right to vote, all outstanding ownership interests in each of its Material Subsidiaries; and all of the issued and outstanding capital stock of each such Material Subsidiary organized as a corporation is validly issued, fully paid and nonassessable.

SECTION 3.13. True and Complete Disclosure. The information, reports, financial statements, exhibits and schedules furnished in writing by or on behalf of the Borrower to the Administrative Agent or any Lender in connection with the negotiation, preparation or delivery of this Agreement or included herein or delivered pursuant hereto, as of the date of delivery thereof and when taken as a whole, do not contain any untrue statement of a material fact or, when considered together with all reports theretofore filed with the SEC, omit to state any material fact necessary to make the statements herein or therein, in light of the circumstances under which they were made, not misleading; provided, however, that, with respect to projected financial information, forecasts and other forward-looking information, the Borrower represents only that such information was prepared in good faith based upon assumptions and estimates developed by management of the Borrower in good faith and believed to be reasonable at the time (it being understood that such information is not a guarantee of future performance and that actual results during the period or periods covered by such information may materially differ from the projected results therein). All written information furnished after the date hereof by the Borrower and its Subsidiaries to the Administrative Agent and the Lenders in connection with this Agreement and the transactions contemplated hereby will be true, complete and accurate in every material respect, or (in the case of forward-looking statements) based upon assumptions and estimates developed by management of the Borrower in good faith and believed to be reasonable at the time, on the date as of which such information is stated or certified; provided that, in the case of projected financial information, forecasts and other forward-looking information, no assurance is given that any results forecasted in any such projections or forward-looking information will actually be achieved or that actual results during the period or periods covered by such information will not differ materially from the results set forth in such projections or forward-looking information.

SECTION 3.14. Anti-Corruption Laws and Sanctions. The Borrower, its Subsidiaries, and their respective officers and employees and to the knowledge of the Borrower its directors and agents, are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. None of (a) the Borrower, any Subsidiary or to the knowledge of the

Borrower any of their respective directors, officers or employees, or (b) to the knowledge of the Borrower, any agent of the Borrower or any Subsidiary that will act in any capacity in connection with or benefit from the credit facility established hereby, is a Sanctioned Person. No Borrowing or Letter of Credit, use of proceeds or other transaction contemplated by this Agreement will violate any Anti-Corruption Law or applicable Sanctions.

SECTION 3.15. EFA Financial Institutions. The Borrower is not an EEA Financial Institution.

ARTICLE IV

Conditions

SECTION 4.01. Effective Date. The obligations of the Lenders to make Loans and of the Issuing Banks to issue Letters of Credit hereunder shall not become effective until the date on which each of the following conditions is satisfied (or waived in accordance with Section 8.02):

(a) The Administrative Agent (or its counsel) shall have received from each party hereto either (i) a counterpart of this Agreement signed on behalf of such party or (ii) written evidence satisfactory to the Administrative Agent (which may include facsimile transmission of a signed signature page of this Agreement) that such party has signed a counterpart of this Agreement.

(b) The Administrative Agent shall have received an opinion, dated as of the Effective Date, and in form and substance satisfactory to the Administrative Agent and its counsel, of each of (i) Jones Day, special New York counsel to the Borrower, (ii) in-house counsel to the Borrower, and (iii) Lowenstein Sandler LLP, special New Jersey counsel to the Borrower.

(c) The Administrative Agent shall have received such documents and certificates as the Administrative Agent or its counsel may reasonably request relating to the organization, existence and good standing of the Borrower, the authorization of the Transactions and any other legal matters relating to the Borrower, this Agreement or the Transactions, all in form and substance satisfactory to the Administrative Agent and its counsel.

(d) The Administrative Agent shall have received a certificate dated the Effective Date and signed by the President, a Vice President or a Financial Officer of the Borrower, confirming compliance with the conditions set forth in paragraph (i) of this Section 4.01.

(e) The Administrative Agent shall have received all fees and other amounts due and payable on or prior to the Effective Date, including, to the extent invoiced, reimbursement or payment of all reasonable fees, charges and disbursements of counsel incurred in connection with the credit facilities provided under this Agreement and any related documentation required to be reimbursed or paid by the Borrower hereunder.

(f) The Administrative Agent shall have received satisfactory evidence that all Governmental Approvals and third-party approvals necessary or, in the reasonable discretion of the Administrative Agent, advisable in connection with the Transactions, the repayment of the Indebtedness, if any, of the Borrower indicated on Schedule 4.01 and the continuing operations of the Borrower and its Subsidiaries have been obtained and are in full force and effect and all applicable waiting periods have expired with respect thereto without any action being taken or threatened by any Governmental Authority or a third party which would restrain, prevent or otherwise impose adverse conditions on the Transaction or the repayment of the Indebtedness, if any, of the Borrower indicated on Schedule 4.01.

(g) The Administrative Agent and the Lenders shall have received (i) the financial statements required to be furnished by the Borrower pursuant to Section 3.02 hereof and (ii) to the extent available, satisfactory unaudited interim consolidated financial statements of the Borrower for each quarterly period ended subsequent to September 30, 2015.

(h) The Administrative Agent and the Lenders shall have received satisfactory evidence that the principal of and interest on, and all other amounts owing in respect of, the Indebtedness of the Borrower indicated on Schedule 4.01 that is to be repaid shall have been (or shall be simultaneously) paid in full and that any commitments to extend credit under the agreements or instruments relating to such Indebtedness shall have been canceled or terminated.

(i) The representations and warranties of the Borrower set forth in this Agreement (including, without limitations, the representations and warranties set forth in Section 3.03 and the last two sentences of Section 3.02) shall, as of the Effective Date, be true and correct in all material respects and no Default shall have occurred and be continuing.

The Administrative Agent shall notify the Borrower and the Lenders of the Effective Date, and such notice shall be conclusive and binding. Notwithstanding the foregoing, the obligations of the Lenders to make Loans and of the Issuing Banks to issue Letters of Credit hereunder shall not become effective unless each of the foregoing conditions is satisfied (or waived pursuant to Section 8.02) at or prior to 3:00 p.m., New York City time, on or before September 9, 2016 (and, in the event such conditions are not so satisfied or waived, the Commitments shall terminate at such time).

SECTION 4.02. Each Credit Event. The obligation of each Lender to make a Loan on the occasion of any Borrowing and of the Issuing Banks to issue, amend, renew or extend any Letter of Credit, is subject to the satisfaction of the following conditions:

(a) The representations and warranties of the Borrower set forth in this Agreement (including, without limitation, the representations and warranties set forth in Section 3.03 but excluding the representations and warranties set forth in the last two sentences of Section 3.02) shall be true and correct in all material respects on and as of the date of such Borrowing or the date of issuance, amendment, renewal or extension of such Letter of Credit, as applicable, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date.

(b) At the time of and immediately after giving effect to such Borrowing or issuance, amendment, renewal or extension of such Letter of Credit, as applicable, no Default shall have occurred and be continuing.

Each Borrowing and each issuance, amendment, renewal or extension of a Letter of Credit shall be deemed to constitute a representation and warranty by the Borrower on the date thereof as to the matters specified in paragraphs (a) and (b) of this Section.

ARTICLE V

Covenants of the Borrower

The Borrower covenants and agrees with the Lenders and the Administrative Agent that, until the Commitments have expired or been terminated and the principal of and interest on each Loan and all fees payable hereunder shall have been paid in full and all Letters of Credit shall have expired or terminated, in each case, without any pending draw, and all LC Disbursements shall have been reimbursed:

SECTION 5.01. Financial Statements, Etc. The Borrower shall deliver to each of the Lenders:

(a) as soon as available and in any event within 60 days after the end of each of the first three fiscal quarters of each fiscal year of the Borrower, consolidated statements of income and retained earnings and cash flow of the Borrower and its consolidated Subsidiaries for such period and for the period from the beginning of the respective fiscal year to the end of such period, and the related consolidated balance sheet of the Borrower and its consolidated Subsidiaries as at the end of such period, setting forth in each case in comparative form to the extent required by SEC Form 10-Q the corresponding consolidated figures for the corresponding period in the preceding fiscal year, accompanied by a certificate of a senior Financial Officer of the Borrower, which certificate shall state that said consolidated financial statements fairly present in all material respects the consolidated financial condition and results of operations of the Borrower and its consolidated Subsidiaries in accordance with GAAP, consistently applied, as at the end of, and for, such period (subject to normal year-end audit adjustments);

(b) as soon as available and in any event within 100 days after the end of each fiscal year of the Borrower, consolidated statements of income, retained earnings and cash flow of the Borrower and its consolidated Subsidiaries for such fiscal year and the related consolidated balance sheets of the Borrower and its consolidated Subsidiaries as at the end of such fiscal year, setting forth in each case in comparative form the corresponding consolidated figures for the preceding fiscal year and accompanied by an opinion thereon of independent certified public accountants of recognized national standing, which opinion shall state that said consolidated financial statements fairly present in all material respects the consolidated financial condition and results of operations of the Borrower and its consolidated Subsidiaries as at the end of, and for, such fiscal year in accordance with GAAP;

(c) promptly upon their becoming publicly available copies of all registration statements and regular periodic reports, if any, which the Borrower shall have filed with the SEC under the Securities Act of 1933, the Securities Exchange Act of 1934 or any national securities exchange;

(d) promptly upon the mailing thereof to the shareholders of the Borrower generally, copies of all financial statements, reports and proxy statements so mailed;

(e) promptly upon the occurrence of any ERISA Event that, alone or together with any other ERISA Events that have occurred, would reasonably be expected to result in a Material Adverse Effect, a written notice describing the same in reasonable detail;

(f) promptly after the Borrower knows or has reason to believe that (i) any Default has occurred, a notice of such Default describing the same in reasonable detail and, together with such notice or as soon thereafter as possible, a description of the action that the Borrower has taken or proposes to take with respect thereto or (ii) at any time that Loans are outstanding hereunder, there exists a legal or arbitral proceeding, or any proceeding by or before any governmental or regulatory authority or agency (other than any proceeding before the New York State Public Service Commission, or comparable authority or agency of another state, in the ordinary course of Borrower's business), to which the Borrower or any Material Subsidiary is a party, or pending or threatened (of which the Borrower has knowledge), in which there is a reasonable possibility of an adverse decision and which could reasonably be expected to have a Material Adverse Effect, a notice describing the same in reasonable detail and, together with such notice or as soon thereafter as possible, a description of the action that the Borrower has taken or proposes to take with respect thereto;

(g) promptly prior to the expiration of any material Governmental Approval, a copy of a renewal or extension of such Governmental Approval, in form and substance satisfactory to the Required Lenders;

(h) promptly upon receipt thereof, a copy of each management letter or memorandum commenting on internal accounting controls and/or accounting or financial reporting policies followed by the Borrower and/or any of its Subsidiaries that is submitted to the Borrower by its independent accountants in connection with any annual or interim audit made by them of the books of Borrower or any of its Subsidiaries; and

(i) from time to time, such other information regarding the financial condition, operations, business or prospects of the Borrower (including any change in the ratings established by any Rating Agency with respect to the Index Debt) or any of its Subsidiaries (including, without limitation, any Plan or Multiemployer Plan and any reports or other information required to be filed under ERISA) as any Lender or the Administrative Agent may reasonably request.

The Borrower will furnish to each Lender, at the time it furnishes each set of financial statements pursuant to paragraph (a) or (b) above, a certificate of a Financial Officer of the Borrower (i) to the effect that no Default has occurred and is continuing (or, if any Default has occurred and is continuing, describing the same in reasonable detail and describing the action

that the Borrower has taken or proposes to take with respect thereto), and (ii) setting forth the calculations required to demonstrate that, as of the end of the fiscal quarter most recently ended, the Borrower is in compliance with Section 5.07 of this Agreement.

SECTION 5.02. Existence, Etc.. The Borrower will, and will cause each of its Material Subsidiaries to:

- (a) preserve and maintain its legal existence and all of its material (i) rights, (ii) privileges, (iii) licenses and (iv) franchises (provided that nothing in this Section 5.02 shall prohibit any transaction expressly permitted under Section 5.04 hereof);
- (b) pay and discharge all Taxes imposed on it or on its income or profits or on any of its property prior to the date on which penalties attach thereto, except for any such Tax the payment of which is being contested in good faith and by proper proceedings and against which adequate reserves are being maintained;
- (c) maintain all of its properties used or useful in its business in good working order and condition, ordinary wear and tear excepted;
- (d) keep adequate records and books of account, in which complete entries will be made in accordance with GAAP consistently applied; and
- (e) permit representatives of any Lender or the Administrative Agent, during normal business hours, to examine, copy and make extracts from its books and records, to inspect any of its properties, and to discuss its business and affairs with its officers, all to the extent reasonably requested by such Lender or the Administrative Agent (as the case may be).

SECTION 5.03. Insurance. The Borrower will, and will cause each of its Material Subsidiaries to, keep insured by financially sound and reputable insurers all property of a character usually insured by corporations engaged in the same or similar business similarly situated against loss or damage of the kinds and in the amounts customarily insured against by such corporations and carry such other insurance as is usually carried by such corporations.

SECTION 5.04. Prohibition of Fundamental Changes. The Borrower will not, nor will it permit any of its Material Subsidiaries to, enter into any transaction of merger or consolidation or amalgamation, or liquidate, wind up or dissolve itself (or suffer any liquidation or dissolution). The Borrower will not amend its articles of incorporation, including, without limitation, by way of reincorporation in another jurisdiction, or its by-laws, in either case in any manner which could have a material adverse effect on the rights of, or remedies or benefits available to, the Administrative Agent and the Lenders under this Agreement. The Borrower will not, nor will it permit any of its Material Subsidiaries to, without the consent of the Required Lenders (such consent not to be unreasonably withheld), convey, sell, lease, transfer or otherwise dispose of, in one transaction or a series of transactions, all or any material part of its business or property, whether now owned or hereafter acquired. Notwithstanding the foregoing provisions of this Section 5.04:

- (a) any Material Subsidiary of the Borrower may be merged or consolidated with or into: (i) the Borrower, if the Borrower shall be the continuing or surviving corporation or

(ii) any other Wholly-Owned Subsidiary of the Borrower, provided that the Wholly-Owned Subsidiary shall be the continuing or surviving corporation; and, provided, further, that, in each case, after giving effect thereto, no Default would exist hereunder;

(b) any Material Subsidiary may sell, lease, transfer or otherwise dispose of any or all of its property (upon voluntary liquidation or otherwise) to the Borrower or a Wholly-Owned Subsidiary of the Borrower;

(c) the Borrower may merge or consolidate with or into any other Person if the Borrower is the continuing or surviving corporation and after giving effect thereto no Default would exist hereunder; and

(d) the Borrower or any Material Subsidiary may implement a Permitted Receivables Financing and, solely as part of such program, may sell or subject to lien not more than \$100,000,000 of its assets in the aggregate.

SECTION 5.05. Limitation on Liens. The Borrower will not pledge, mortgage, hypothecate, or permit any other Lien upon, any property or assets at any time owned by it, without making effective provision whereby the obligations of the Borrower to pay the principal of and interest on the Loans and all other amounts payable hereunder shall be equally and ratably secured with the obligations secured by such Lien and with any other obligations (collectively, the “Other Obligations”) similarly entitled by their terms to be equally and ratably secured; provided that this restriction shall not apply to or prevent:

(a) the mortgaging, pledging, or establishing a Lien on, any property to secure Indebtedness of the Borrower as part of the purchase price of such property, or the extension, renewal or refunding of any such mortgage, pledge or Lien, on substantially the same property theretofore subject thereto or on any part thereof;

(b) the acquisition by the Borrower of any property subject to mortgages, pledges or Liens existing thereon at the time of acquisition (whether or not the obligations secured thereby are assumed by the Borrower), and the extension, renewal or refunding of any such mortgage, pledge or Lien, on substantially the same property theretofore subject thereto or on any part thereof;

(c) the pledging of its assets or security for the payment of any Tax demanded from the Borrower by any public body so long as the Borrower in good faith is contesting its liability to pay the same, or such lien relates to any Tax that is not yet due and payable, or as security to be deposited with any State Insurance Department or similar public body in order to entitle the Borrower to maintain self insurance under, or participate under any State insurance fund provided for under any legislation designed to insure employees of the Borrower against injury or occupational diseases or for any other purpose at any time required by law or governmental regulation as a condition to the transaction of any business or the exercise of any privilege or license;

(d) the pledging by the Borrower of up to 5% of its total assets (as defined under GAAP) for the purpose of securing a stay or discharge in the course of any legal proceeding to which the Borrower is a party; or

(e) the transaction described in Section 5.04(d), provided that any Lien relating to the Permitted Receivables Financing referred to therein shall be subject to the limitations in such Section 5.04(d).

but in no event shall the mortgage, pledge or Lien permitted by subdivisions (a) and (b) be in excess of 60% of the total purchase price of the property so acquired.

In case the Borrower shall propose to pledge, mortgage or hypothecate any assets or property at any time owned by it to secure any Other Obligations, other than as permitted by clauses (a) through (e) of the preceding paragraph of this Section 5.05, it will prior thereto give notice thereof to the Administrative Agent, and will prior to or simultaneously with such pledge, mortgage or hypothecation, by an agreement, indenture or other instrument to which the Administrative Agent is a party (or to the extent legally necessary, with a trustee), in form and substance reasonably satisfactory to the Administrative Agent, effectively secure the obligations of the Borrower to pay the principal of and interest on the Loans and all other amounts payable hereunder equally and ratably with such Other Obligations by pledge, mortgage or hypothecation of such assets or property. Such agreement, indenture or other instrument shall contain such provisions as the Borrower and the Required Lenders shall deem advisable or appropriate or as the Required Lenders shall reasonably deem necessary in connection with such pledge, mortgage or hypothecation.

SECTION 5.06. Use of Proceeds and Letters of Credit. The Borrower will use the proceeds of the Loans and issuances of Letters of Credit hereunder solely (a) to pay its obligations under (i) its commercial paper program, (ii) other short-term credit facilities, (iii) maturing long-term debt obligations, and (iv) to repay in full all outstanding loans (if any) under the Existing Credit Agreement; and (b) for the general corporate purposes of the Borrower and its Subsidiaries in the ordinary course of business, including for working capital, capital expenditure and other lawful corporate purposes (in compliance with all applicable legal and regulatory requirements); provided that neither the Administrative Agent nor any Lender shall have any responsibility as to the use of any of such proceeds. No part of the proceeds of any Loan will be used, whether directly or indirectly, for any purpose that entails a violation of any of the Regulations of the Board, including Regulations T, U and X. The Borrower will not request any Borrowing or Letter of Credit, and the Borrower shall not use, and shall ensure that its Subsidiaries and its or their respective directors, officers, employees and agents shall not use, the proceeds of any Borrowing or Letter of Credit (A) in furtherance of an offer, payment, promise to pay, or authorization of the payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws, (B) for the purpose of funding, financing or facilitating any activities, business or transaction of or with any Sanctioned Person, or in any Sanctioned Country, or (C) in any manner that would result in the violation of any Sanctions applicable to any party hereto.

SECTION 5.07. Financial Condition. The Borrower shall not permit the ratio of Consolidated Indebtedness to Consolidated Capitalization as at the last day of any fiscal quarter to exceed 0.675 to 1.0; provided, that, as at December 31, 2017 and as at the last day of each fiscal quarter thereafter, the Borrower shall not permit such ratio to exceed 0.65 to 1.0.

SECTION 5.08. Compliance with Laws. The Borrower will, and will cause each of its Subsidiaries to, comply with all laws, rules, regulations and orders of any Governmental Authority applicable to it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect. The Borrower will, and will cause its Subsidiaries and their respective officers and employees and will use its best efforts to cause its directors and agents, to be in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects.

ARTICLE VI

Events of Default

If one or more of the following events (herein called “Events of Default”) shall occur and be continuing:

(a) The Borrower shall: (i) default in the payment of any principal of any Loan or any reimbursement obligation in respect of any LC Disbursement when and as the same shall become due and payable (whether at stated maturity or at mandatory or optional prepayment); or (ii) default in the payment of any interest on any Loan, any fee or any other amount payable by it hereunder when due and such default shall have continued unremedied for five or more days; or

(b) The Borrower or any of its Material Subsidiaries shall default in the payment when due of any principal of or interest on any of its other Indebtedness aggregating \$40,000,000 or more; or any event specified in any note, agreement, indenture or other document evidencing or relating to any such Indebtedness shall occur if the effect of such event is to cause, or (with the giving of any notice or the lapse of time or both) to permit the holder or holders of such Indebtedness (or a trustee or agent on behalf of such holder or holders) to cause, such Indebtedness to become due, or to be prepaid in full (whether by redemption, purchase, offer to purchase or otherwise), prior to its stated maturity; or

(c) Any representation, warranty or certification made or deemed made herein (or in any modification or supplement hereto) by the Borrower, or any certificate furnished to any Lender or the Administrative Agent pursuant to the provisions hereof, shall prove to have been false or misleading as of the time made or furnished in any material respect; or

(d) The Borrower shall default in the performance of any of its obligations under any of Sections 5.01(g), 5.03, 5.04, 5.05, 5.06 or 5.07 hereof; or the Borrower shall default in the performance of any of its other obligations in this Agreement and such default shall continue unremedied for a period of 30 days after notice thereof to the Borrower by the Administrative Agent or any Lender (through the Administrative Agent); or

(e) The Borrower or any of its Material Subsidiaries shall admit in writing its inability to, or be generally unable to, pay its debts as such debts become due; or

(f) The Borrower or any of its Material Subsidiaries shall (i) apply for or consent to the appointment of, or the taking of possession by, a receiver, custodian, trustee, examiner or liquidator of itself or of all or a substantial part of its property, (ii) make a general assignment for the benefit of its creditors, (iii) commence a voluntary case under the Bankruptcy Code, (iv) file a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, liquidation, dissolution, arrangement or winding-up, or composition or readjustment of debts, (v) fail to controvert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it in an involuntary case under the Bankruptcy Code or (vi) take any corporate action for the purpose of effecting any of the foregoing; or

(g) A proceeding or case shall be commenced, without the application or consent of the Borrower or any of its Material Subsidiaries, in any court of competent jurisdiction, seeking (i) its reorganization, liquidation, dissolution, arrangement or winding-up, or the composition or readjustment of its debts, (ii) the appointment of a receiver, custodian, trustee, examiner, liquidator or the like of the Borrower or such Subsidiary or of all or any substantial part of its property, or (iii) similar relief in respect of the Borrower or such Subsidiary under any law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or adjustment of debts, and such proceeding or case shall continue undismissed, or an order, judgment or decree approving or ordering any of the foregoing shall be entered and continue unstayed and in effect, for a period of 60 or more days; or an order for relief against the Borrower or such Subsidiary shall be entered in an involuntary case under the Bankruptcy Code; or

(h) A final judgment or judgments for the payment of money in excess of \$40,000,000 in the aggregate (exclusive of judgment amounts fully covered by insurance where the insurer has admitted liability in respect of such judgment) shall be rendered by one or more courts, administrative tribunals or other bodies having jurisdiction against the Borrower or any of its Material Subsidiaries and the same shall not be discharged (or provision shall not be made for such discharge), or a stay of execution thereof shall not be procured, within 30 days from the date of entry thereof and the Borrower or the relevant Subsidiary shall not, within said period of 30 days, or such longer period during which execution of the same shall have been stayed, appeal therefrom and cause the execution thereof to be stayed during such appeal; or

(i) an ERISA Event shall have occurred that, in the opinion of the Required Lenders, when taken together with all other ERISA Events that have occurred, could reasonably be expected to result in a Material Adverse Effect;

THEREUPON: (1) in the case of an Event of Default other than one referred to in clause (f) or (g) of this Article VI with respect to the Borrower, (A) the Administrative Agent may and, upon request of the Required Lenders, shall, by notice to the Borrower, terminate the Commitments and they shall thereupon terminate, and (B) the Administrative Agent may and, upon request of the Required Lenders, shall, by notice to the Borrower, declare the principal amount then outstanding of, and the accrued interest on, the Loans and all other amounts payable

by the Borrower hereunder (including, without limitation, any amounts payable under Section 2.16 hereof) to be forthwith due and payable, whereupon such amounts shall be immediately due and payable without presentment, demand, protest or other formalities of any kind, all of which are hereby expressly waived by the Borrower; and (2) in the case of the occurrence of an Event of Default referred to in clause (f) or (g) of this Article VI with respect to the Borrower, the Commitments shall automatically be terminated and the principal amount then outstanding of, and the accrued interest on, the Loans and all other amounts payable by the Borrower hereunder (including, without limitation, any amounts payable under Section 2.16 hereof) shall automatically become immediately due and payable without presentment, demand, protest or other formalities of any kind, all of which are hereby expressly waived by the Borrower.

ARTICLE VII

The Administrative Agent

Each of the Lenders and each of the Issuing Banks hereby irrevocably appoints the Administrative Agent as its agent and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof, together with such actions and powers as are reasonably incidental thereto.

The bank serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent, and such bank and its Affiliates may accept deposits from, lend money to and generally engage in any kind of business with the Borrower or any Subsidiary or other Affiliate thereof as if it were not the Administrative Agent hereunder.

The Administrative Agent shall not have any duties or obligations except those expressly set forth herein. Without limiting the generality of the foregoing, (a) the Administrative Agent shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing, (b) the Administrative Agent shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby that the Administrative Agent is required to exercise in writing as directed by the Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 8.02), and (c) except as expressly set forth herein, the Administrative Agent shall not have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrower or any of its Subsidiaries that is communicated to or obtained by the bank serving as Administrative Agent or any of its Affiliates in any capacity. The Administrative Agent shall not be liable for any action taken or not taken by it with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary under the circumstances as provided in Section 8.02) or in the absence of its own gross negligence or willful misconduct. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice thereof is given to the Administrative Agent by the Borrower or a Lender, and the Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement,

(ii) the contents of any certificate, report or other document delivered hereunder or in connection herewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement or any other agreement, instrument or document, or (v) the satisfaction of any condition set forth in Article IV or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Administrative Agent.

The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing believed by it to be genuine and to have been signed or sent by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to be made by the proper Person, and shall not incur any liability for relying thereon. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

The Administrative Agent may perform any and all its duties and exercise its rights and powers by or through any one or more sub-agents appointed by the Administrative Agent. The Administrative Agent and any such sub-agent may perform any and all its duties and exercise its rights and powers through their respective Related Parties. The exculpatory provisions of the preceding paragraphs shall apply to any such sub-agent and to the Related Parties of the Administrative Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as Administrative Agent.

Subject to the appointment and acceptance of a successor Administrative Agent as provided in this paragraph, the Administrative Agent may resign at any time by notifying the Lenders, the Issuing Banks and the Borrower. Upon any such resignation, the Borrower shall have the right (i) with the consent of the Required Lenders, which may be withheld in their sole discretion, to appoint a successor, which shall be a bank with an office in New York, New York, or an Affiliate of any such bank or (ii) with the consent of the Required Lenders, such consent not to be unreasonably withheld, conditioned or delayed, to appoint a successor from among the existing Lenders. If no successor shall have been so appointed by the Borrower with the consent of the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may, on behalf of the Lenders and the Issuing Banks, appoint a successor Administrative Agent which shall be a bank with an office in New York, New York, or an Affiliate of any such bank. Upon the acceptance of its appointment as Administrative Agent hereunder by a successor, such successor shall succeed to and become vested with all the rights, powers, privileges and duties of the retiring Administrative Agent, and the retiring Administrative Agent shall be discharged from its duties and obligations hereunder. The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the Administrative Agent's resignation hereunder, the provisions of this Article and Section 8.03 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related

Parties in respect of any actions taken or omitted to be taken by any of them while it was acting as Administrative Agent.

Each Lender acknowledges and agrees that the extensions of credit made hereunder are commercial loans and letters of credit and not investments in a business enterprise or securities. Each Lender further represents that it is engaged in making, acquiring or holding commercial loans in the ordinary course of its business and has, independently and without reliance upon the Administrative Agent or any other Lender and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement as a Lender, and to make, acquire or hold Loans hereunder. Each Lender shall, independently and without reliance upon the Administrative Agent or any other Lender and based on such documents and information (which may contain material, non-public information within the meaning of the United States securities laws concerning the Borrower and its Affiliates) as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder and in deciding whether or to the extent to which it will continue as a Lender or assign or otherwise transfer its rights, interests and obligations hereunder.

Each Lender acknowledges and agrees that neither such Lender, nor any of its Affiliates, participants or assignees, may rely on the Administrative Agent to carry out such Lender's, Affiliate's, participant's or assignee's customer identification program, or other obligations required or imposed under or pursuant to the USA Patriot Act or the regulations thereunder, including the regulations contained in 31 CFR 103.121 (as hereafter amended or replaced, the "CIP Regulations"), or any other Anti-Terrorism Law, including any programs involving any of the following items relating to or in connection with the Borrower or any of its Subsidiaries, any of their respective Affiliates or agents, this Agreement, the documents delivered pursuant hereto or the transactions hereunder: (a) any identity verification procedures, (b) any record keeping, (c) any comparisons with government lists, (d) any customer notices or (e) any other procedures required under the CIP Regulations or such other laws.

Each Lender or assignee or participant of a Lender that is not organized under the laws of the United States of America or a state thereof (and is not excepted from the certification requirement contained in Section 313 of the USA Patriot Act and the applicable regulations because it is both (a) an affiliate of a depository institution or foreign bank that maintains a physical presence in the United States or foreign country, and (b) subject to supervision by a banking authority regulating such affiliated depository institution or foreign bank) shall deliver to the Administrative Agent the certification, or, if applicable, recertification, certifying that such Lender is not a "shell" and certifying to other matters as required by Section 313 of the USA Patriot Act and the applicable regulations: (i) within ten (10) days after the Effective Date, and (ii) at such other times as are required under the USA Patriot Act.

Any Lender identified herein as a Co-Agent, Syndication Agent, Documentation Agent, Managing Agent, Manager, Lead Arranger, Arranger, Advisor, Bookrunner or any other corresponding title, other than "Administrative Agent," shall have no right, power, obligation, liability, responsibility or duty under this Agreement or any other Loan Document except those applicable to all Lenders as such. Each Lender acknowledges that it has not relied, and will not

rely, on any Lender so identified in deciding to enter into this Agreement or in taking or not taking any action hereunder.

ARTICLE VIII

Miscellaneous

SECTION 8.01. Notices.

(a) Except in the case of notices and other communications expressly permitted to be given by telephone (and subject to paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile, as follows:

(i) if to the Borrower, to it at 6363 Main Street, Williamsville, New York 14221-5887, Attention of David Bauer, Treasurer and Principal Financial Officer (Facsimile No. (716) 857-7856);

(ii) if to the Administrative Agent, to JPMorgan Chase Bank, N.A., 10 South Dearborn, Floor L2S, Chicago, IL 60603-2300, Attention: Yvette Owens (Telecopy: 312-385-1703; Telephone: 312-385-7021; Email: yvette.owens@jpmorgan.com);

(iii) if to JPMorgan Chase Bank, N.A., as an Issuing Bank, to it at JPMorgan Chase Bank, National Association, Standby Letter of Credit Unit, 131 South Dearborn, 5th Floor, Mail Code IL1-0236, Chicago, Illinois 60603-0236 (Facsimile No. (312) 233-2265) and if to any other Issuing Bank, to it at its address (or facsimile number) set forth in its Administrative Questionnaire;

(iv) if to the Swingline Lender, to JPMorgan Chase Bank, N.A., 10 South Dearborn, Floor L2S, Chicago, IL 60603-2300, Attention: Yvette Owens (Telecopy: 312-385-1703; Telephone: 312-385-7021; Email: yvette.owens@jpmorgan.com); and

(v) if to any other Lender, to it at its address (or facsimile number) set forth in its Administrative Questionnaire.

(b) Notices and other communications (including, without limitation, financial statements and other documents delivered pursuant to Section 5.01 hereof) to the Lenders hereunder may be delivered or furnished by electronic communications pursuant to procedures approved by the Administrative Agent; provided that the foregoing shall not apply to notices pursuant to Article II unless otherwise agreed by the Administrative Agent and the applicable Lender. The Administrative Agent or the Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it; provided that approval of such procedures may be limited to particular notices or communications.

(c) Any party hereto may change its address or facsimile number for notices and other communications hereunder by notice to the other parties hereto. All notices and other

communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of receipt.

SECTION 8.02. Waivers; Amendments.

(a) No failure or delay by the Administrative Agent, any Issuing Bank or any Lender in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of the Administrative Agent, the Issuing Banks and the Lenders hereunder are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. Without limiting the generality of the foregoing, the making of a Loan or issuance of a Letter of Credit shall not be construed as a waiver of any Default, regardless of whether the Administrative Agent, any Lender or any Issuing Bank may have had notice or knowledge of such Default at the time.

(b) Neither this Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by the Borrower and the Required Lenders or by the Borrower and the Administrative Agent with the consent of the Required Lenders; provided that no such agreement shall (i) increase the Commitment of any Lender without the written consent of such Lender, (ii) reduce the principal amount of any Loan or LC Disbursement or reduce the rate of interest thereon, or reduce any fees payable hereunder, without the written consent of each Lender affected thereby, (iii) postpone the scheduled date of payment of the principal amount of any Loan or LC Disbursement, or any interest thereon, or any fees payable hereunder, or reduce the amount of, waive or excuse any such payment, or postpone the scheduled date of expiration of the Multi-Year Facility Commitment or the 364-Day Facility Commitment, without the written consent of each Lender affected thereby, (iv) change Section 2.18(b) or (c) in a manner that would alter the pro rata sharing of payments required thereby, without the written consent of each Lender, or (v) change any of the provisions of this Section or the definition of "Required Lenders" or any other provision hereof specifying the number or percentage of Lenders required to waive, amend or modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender; provided further that no such agreement shall amend, modify or otherwise affect (i) the rights or duties of the Administrative Agent, the Issuing Banks or the Swingline Lender hereunder or (ii) Section 2.20 without the prior written consent of the Administrative Agent, the Issuing Banks or the Swingline Lender, as the case may be.

(c) Notwithstanding Section 8.02(b), any amendment, waiver, modification or agreement which by its terms requires the consent of all Lenders or each affected Lender may be effected with the consent of the applicable Lenders other than the Defaulting Lenders except that (x) the Commitment of any Defaulting Lender may not be increased or extended without the consent of such Defaulting Lender, (y) the principal amount of, or interest or fees payable

on, Loans may not be reduced or excused or the scheduled date of payment may not be postponed as to such Defaulting Lender without such Defaulting Lender's consent and (z) any waiver, amendment or modification requiring the consent of all Lenders or each affected Lender that by its terms affects any Defaulting Lender more adversely than other affected Lenders shall require the consent of such Defaulting Lender.

SECTION 8.03. Expenses; Indemnity; Damage Waiver.

(a) The Borrower shall pay (i) all reasonable fees, charges and disbursements of counsel incurred by the Administrative Agent and its Affiliates, including the reasonable fees, charges and disbursements of counsel for the Administrative Agent, in the course of preparing for the Transactions (including the preparation of this Agreement and any related documentation), (ii) all reasonable out-of-pocket expenses incurred by the Administrative Agent, the Lead Arrangers and their Affiliates, including the reasonable fees, charges and disbursements of counsel for the Administrative Agent, in connection with the syndication of the Loans and the preparation, execution, delivery and administration of this Agreement or any amendments, modifications or waivers of the provisions hereof (whether or not the transactions contemplated hereby or thereby shall be consummated), (iii) all reasonable out-of-pocket expenses incurred by the relevant Issuing Bank in connection with the issuance, amendment, renewal or extension of any Letter of Credit or any demand for payment thereunder and (iv) all reasonable out-of-pocket expenses incurred by the Administrative Agent, any Issuing Bank or any Lender, including the reasonable fees, charges and disbursements of any counsel for the Administrative Agent, any Issuing Bank or any Lender, in connection with the enforcement or protection of its rights in connection with this Agreement, including its rights under this Section, or in connection with the Loans made or Letters of Credit issued hereunder, including all such reasonable out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of such Loans or Letters of Credit.

(b) The Borrower shall indemnify the Administrative Agent, each Issuing Bank and each Lender, and each Related Party of any of the foregoing Persons (each such Person being called an "Indemnatee") against, and hold each Indemnatee harmless from, any and all losses, claims, damages, liabilities and related expenses, including the fees, charges and disbursements of any counsel for any Indemnatee, incurred by or asserted against any Indemnatee arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement or any agreement or instrument contemplated hereby, the performance by the parties hereto of their respective obligations hereunder or the consummation of the Transactions or any other transactions contemplated hereby, (ii) any Loan or Letter of Credit or the use of the proceeds therefrom (including any refusal by an Issuing Bank to honor a demand for payment under a Letter of Credit if the documents presented in connection with such demand do not strictly comply with the terms of such Letter of Credit), (iii) any actual or alleged presence or release of Hazardous Materials on or from any property owned or operated by the Borrower or any of its Subsidiaries, or any Environmental Liability related in any way to the Borrower or any of its Subsidiaries, or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory and regardless of whether any Indemnatee is a party thereto; provided that such indemnity shall not, as to any Indemnatee, be available to the extent that such losses, claims, damages, liabilities or

related expenses are determined by a court or other Governmental Authority of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee. This Section 9.3(b) shall not apply to Taxes other than any Taxes that represent losses or damages arising from any non-Tax claim.

(c) To the extent that the Borrower fails to pay any amount required to be paid by it to the Administrative Agent, any Issuing Bank or the Swingline Lender under paragraph (a) or (b) of this Section, each Lender severally agrees to pay to the Administrative Agent, such Issuing Bank or the Swingline Lender, as the case may be, such Lender's Applicable Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount; provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent, such Issuing Bank or the Swingline Lender in its capacity as such.

(d) To the extent permitted by applicable law, the Borrower shall not assert, and hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement or any agreement or instrument contemplated hereby, the Transactions, any Loan or Letter of Credit or the use of the proceeds thereof.

(e) All amounts due under this Section shall be payable promptly after written demand therefor.

SECTION 8.04. Successors and Assigns.

(a) The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), except that (i) the Borrower may not assign or otherwise transfer, by operation of law or otherwise, any of its rights or obligations hereunder without the prior written consent of each Lender (and any such attempted assignment or transfer by the Borrower without such consent shall be null and void) and (ii) no Lender may assign or otherwise transfer its rights or obligations hereunder except in accordance with this Section. Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby (including any Affiliate of any Issuing Bank that issues any Letter of Credit), Participants (to the extent provided in paragraph (c) of this Section) and, to the extent expressly contemplated hereby, the Related Parties of each of the Administrative Agent, the Issuing Banks and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) (i) Subject to the conditions set forth in paragraph (b)(ii) below, any Lender may assign to one or more assignees (other than an Ineligible Institution) all or a portion of its rights and obligations under this Agreement (including all or a portion of its Multi-Year Facility Commitment and the Loans at the time owing to it) with the prior written consent (such consent not to be unreasonably withheld or delayed) of:

(A) the Borrower, provided that, the Borrower shall be deemed to have consented to an assignment unless it shall have objected thereto by written notice to the Administrative Agent within five (5) Business Days after having received written notice thereof; and provided further that no consent of the Borrower shall be required for an assignment to a Lender (other than a Defaulting Lender), an Affiliate of a Lender (other than a Defaulting Lender), an Approved Fund (as defined below) or, if an Event of Default under clause (a), (f) or (g) of Article VI has occurred and is continuing, any other assignee;

(B) the Administrative Agent, provided that no consent of the Administrative Agent shall be required for an assignment to a Lender (other than a Defaulting Lender), an Affiliate of a Lender (other than a Defaulting Lender), or an Approved Fund;

(C) each Issuing Bank for any assignment that increases the obligation of the assignee to participate in exposure under one or more Letters of Credit (whether or not then outstanding); and

(D) the Swingline Lender for any assignment that increases the obligation of the assignee to participate in the Swingline Exposure.

(ii) Assignments shall be subject to the following additional conditions:

(A) except in the case of an assignment to a Lender or an Affiliate of a Lender or an assignment of the entire remaining amount of the assigning Lender's Multi-Year Facility Commitment, the amount of the Multi-Year Facility Commitment, as the case may be, of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent) shall not be less than \$5,000,000 unless each of the Borrower and the Administrative Agent otherwise consent, provided that no such consent of the Borrower shall be required if an Event of Default under clause (a), (f) or (g) of Article VI has occurred and is continuing;

(B) each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement;

(C) the parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee of \$3,500;

(D) the assignee, if it shall not be a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire in which the assignee designates one or more credit contacts to whom all syndicate-level information (which may contain material non-public information about the Borrower and its

related parties or its securities) will be made available and who may receive such information in accordance with the assignee's compliance procedures and applicable laws, including Federal and state securities laws;

(E) in the case of an assignment to a CLO (as defined below), the assigning Lender shall retain the sole right to approve any amendment, modification or waiver of any provision of this Agreement, provided that the Assignment and Assumption between such Lender and such CLO may provide that such Lender will not, without the consent of such CLO, agree to any amendment, modification or waiver described in the first proviso to Section 8.02(b) that affects such CLO; and

(F) the assignee shall deliver the forms required to be delivered by a Lender under Section 2.17(f) prior to such assignment.

For the purposes of this Section 8.04(b), the terms "Approved Fund," "CLO" and "Ineligible Institution" have the following meanings:

"Approved Fund" means (a) a CLO and (b) with respect to any Lender that is a fund which invests in bank loans and similar extensions of credit, any other fund that invests in bank loans and similar extensions of credit and is managed by the same investment advisor as such Lender or by an Affiliate of such investment advisor.

"CLO" means any entity (whether a corporation, partnership, trust or otherwise) that is engaged in making, purchasing, holding or otherwise investing in bank loans and similar extensions of credit in the ordinary course of its business and is administered or managed by a Lender or an Affiliate of such Lender.

"Ineligible Institution" means (a) a natural person, (b) a Defaulting Lender or its Lender Parent, (c) a company, investment vehicle or trust for, or owned and operated for the primary benefit of, a natural person or relative(s) thereof or (d) the Borrower or any of its Affiliates; provided that, such holding company, investment vehicle or trust shall not constitute an Ineligible Institution if it (x) has not been established for the primary purpose of acquiring any Loans or Commitments, (y) is managed by a professional advisor, who is not such natural person or a relative thereof, having significant experience in the business of making or purchasing commercial loans, and (z) has assets greater than \$25,000,000 and a significant part of its activities consist of making or purchasing commercial loans and similar extensions of credit in the ordinary course of its business.

(iii) Subject to acceptance and recording thereof pursuant to paragraph (b)(iv) of this Section, from and after the effective date specified in each Assignment and Assumption the assignee thereunder shall be a party hereto and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption

covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto but shall continue to be entitled to the benefits of Sections 2.15, 2.16, 2.17 and 8.03). Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this Section 8.04 shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (c) of this Section.

(iv) The Administrative Agent, acting as an agent of the Borrower solely for this purpose, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Commitment of, and principal and interest amount of the Loans and LC Disbursements owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive, and the Borrower, the Administrative Agent, the Issuing Banks and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Borrower, any Issuing Bank and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

(v) Upon its receipt of a duly completed Assignment and Assumption executed by an assigning Lender and an assignee, the assignee's completed Administrative Questionnaire (unless the assignee shall already be a Lender hereunder), the processing and recordation fee referred to in paragraph (b) of this Section and any written consent to such assignment required by paragraph (b) of this Section, the Administrative Agent shall accept such Assignment and Assumption and record the information contained therein in the Register; provided that if either the assigning Lender or the assignee shall have failed to make any payment required to be made by it pursuant to Section 2.04(c), 2.05(d), 2.05(e), 2.06(b), 2.18(d) or 8.03(c), the Administrative Agent shall have no obligation to accept such Assignment and Assumption and record the information therein in the Register unless and until such payment shall have been made in full, together with all accrued interest thereon. No assignment shall be effective for purposes of this Agreement unless it has been recorded in the Register as provided in this paragraph.

(c) Any Lender may, without the consent of the Borrower or the Administrative Agent, any Issuing Bank or the Swingline Lender, sell participations to one or more banks or other entities (a "Participant"), other than an Ineligible Institution, in all or a portion of such Lender's rights and obligations under this Agreement (including all or a portion of its Commitment and the Loans owing to it); provided, that (A) such Lender's obligations under this Agreement shall remain unchanged, (B) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (C) the Borrower, the Administrative Agent, the Issuing Banks and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement. Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of

the Participant, agree to any amendment, modification or waiver described in the first proviso to Section 8.02(b) that affects such Participant. The Borrower agrees that each Participant shall be entitled to the benefits of Sections 2.15, 2.16 and 2.17 (subject to the requirements and limitations therein, including the requirements under Section 2.17(f) (it being understood that the documentation required under Section 2.17(f) shall be delivered to the participating Lender) to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to paragraph (b) of this Section; provided that such Participant (A) agrees to be subject to the provisions of Sections 2.18 and 2.19 as if it were an assignee under paragraph (b) of this Section; and (B) shall not be entitled to receive any greater payment under Section 2.15 or 2.17, with respect to any participation, than its participating Lender would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 8.08 as though it were a Lender, provided such Participant agrees to be subject to Section 2.18(c) as though it were a Lender. Each Lender that sells a participation shall, acting as an agent of the Borrower solely for this purpose, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loans or other obligations under this Agreement (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register to any Person (including the identity of any Participant or any information relating to a Participant's interest in any Commitments, Loans, Letters of Credit or its other obligations under this Agreement) except to the extent that such disclosure is necessary to establish compliance with any applicable provision of the Code, including to establish that any Commitment, Loan, Letter of Credit or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

(d) Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including any pledge or assignment to secure obligations to a Federal Reserve Bank, and this Section shall not apply to any such pledge or assignment of a security interest; provided that no such pledge or assignment of a security interest shall release a Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

SECTION 8.05. Survival. All covenants, agreements, representations and warranties made by the Borrower herein and in the certificates or other instruments delivered in connection with or pursuant to this Agreement shall be considered to have been relied upon by the other parties hereto and shall survive the execution and delivery of this Agreement and the making of any Loans and issuance of any Letters of Credit, regardless of any investigation made by any such other party or on its behalf and notwithstanding that the Administrative Agent, the Issuing Bank or any Lender may have had notice or knowledge of any Default or incorrect representation or warranty at the time any credit is extended hereunder, and shall continue in full force and effect as long as the principal of or any accrued interest on any Loan or any fee or any other amount payable under this Agreement is outstanding and unpaid or any Letter of Credit is

outstanding and so long as the Commitments have not expired or terminated. The provisions of Sections 2.15, 2.16, 2.17 and 8.03 and Article VII shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loans and the termination of the Letters of Credit and the Commitments or the termination of this Agreement or any provision hereof.

SECTION 8.06. Counterparts; Integration; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and any separate letter agreements with respect to fees payable to the Administrative Agent constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 4.01, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof which, when taken together, bear the signatures of each of the other parties hereto, and thereafter shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or any other electronic means that reproduces an image of the actual executed signature page shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 8.07. Severability. Any provision of this Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

SECTION 8.08. Right of Setoff. If an Event of Default shall have occurred and be continuing, each Lender and each of its Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by law, to set off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other obligations at any time owing by such Lender or Affiliate to or for the credit or the account of the Borrower against any of and all the obligations of the Borrower now or hereafter existing under this Agreement held by such Lender, irrespective of whether or not such Lender shall have made any demand under this Agreement and although such obligations may be unmatured. The rights of each Lender under this Section are in addition to other rights and remedies (including other rights of setoff) which such Lender may have.

SECTION 8.09. Governing Law; Jurisdiction; Consent to Service of Process.

(a) This Agreement shall be construed in accordance with and governed by the law of the State of New York without giving effect to the principles of conflicts of law thereof (other than Section 5-1401 of the New York General Obligations Law.

(b) The Borrower, the Administrative Agent and each Lender hereby irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of the Supreme Court of the State of New York sitting in New York County, and of the United States

District Court for the Southern District of New York, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement, or for recognition or enforcement of any judgment, and each of the parties hereto hereby irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York State or, to the extent permitted by law, in such Federal court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement shall affect any right that the Administrative Agent, the Issuing Bank or any Lender may otherwise have to bring any action or proceeding relating to this Agreement against the Borrower or its properties in the courts of any jurisdiction.

(c) The Borrower, the Administrative Agent and each Lender hereby irrevocably and unconditionally waives, to the fullest extent it may legally and effectively do so, any objection which it may now or hereafter have to the laying of venue of any suit, action or proceeding arising out of or relating to this Agreement in any court referred to in the first sentence of paragraph (b) of this Section. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) Each party to this Agreement irrevocably consents to service of process in the manner provided for notices in Section 8.01. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

SECTION 8.10. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

SECTION 8.11. Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Agreement and shall not affect the construction of, or be taken into consideration in interpreting, this Agreement.

SECTION 8.12. Confidentiality.

(a) Each of the Administrative Agent, the Issuing Bank and the Lenders agrees to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its and its Affiliates' directors, officers, employees and agents, including accountants, legal counsel and other advisors (it being understood that the Persons to whom

such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by any Governmental Authority (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process, (d) to any other party to this Agreement, (e) in connection with the exercise of any remedies hereunder or any suit, action or proceeding relating to this Agreement or the enforcement of rights hereunder, (f) subject to a written agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to the Borrower and its obligations, (g) with the consent of the Borrower or (h) to the extent such Information (i) becomes publicly available other than as a result of a breach of this Section or (ii) becomes available to the Administrative Agent, the Issuing Bank or any Lender on a non-confidential basis from a source other than the Borrower. For the purposes of this Section, "**Information**" means all information received from the Borrower relating to the Borrower or its business, other than any such information that is available to the Administrative Agent, the Issuing Bank or any Lender on a non-confidential basis prior to disclosure by the Borrower; provided that, in the case of information received from the Borrower after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

(b) EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN SECTION 8.12(a) FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING THE BORROWER AND ITS RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS.

(c) ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWER OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT THE BORROWER AND ITS RELATED PARTIES OR ITS SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWER AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW.

SECTION 8.13. Interest Rate Limitation. Notwithstanding anything herein to the contrary, if at any time the interest rate applicable to any Loan, together with all fees, charges and other amounts which are treated as interest on such Loan under applicable law (collectively the “Charges”), shall exceed the maximum lawful rate (the “Maximum Rate”) which may be contracted for, charged, taken, received or reserved by the Lender holding such Loan in accordance with applicable law, the rate of interest payable in respect of such Loan hereunder, together with all Charges payable in respect thereof, shall be limited to the Maximum Rate.

SECTION 8.14. USA PATRIOT Act. Each Lender that is subject to the requirements of the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) (the “Act”) hereby notifies the Borrower that pursuant to the requirements of the Act, it is required to obtain, verify and record information that identifies the Borrower, which information includes the name and address of the Borrower and other information that will allow such Lender to identify the Borrower in accordance with the Act.

SECTION 8.15. No Fiduciary Duty. The Borrower agrees that in connection with all aspects of the transactions contemplated hereby and any communications in connection therewith, the Borrower and its Affiliates, on the one hand, and the Administrative Agent, the Co-Lead Arrangers, Co-Bookrunner, the Documentation Agent, the Syndication Agent, the other Credit Parties and their respective Affiliates, on the other hand, will have a business relationship that does not create, by implication or otherwise, any fiduciary duty on the part of the Administrative Agent, the Co-Lead Arranger, Co-Bookrunner, the Documentation Agent, the Syndication Agent, the other Credit Parties or their respective Affiliates and no such duty will be deemed to have arisen in connection with any such transactions or communications.

SECTION 8.16. Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent entity, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

SECTION 8.17. Amendment and Restatement. This Agreement amends, restates, supersedes, and replaces in its entirety the Existing Credit Agreement. All obligations of the Borrower under the Existing Credit Agreement shall continue without interruption under this Agreement and all such obligations are hereby ratified and confirmed in all respects. Nothing contained herein shall be construed as a novation of the obligations outstanding under the Existing Credit Agreement, which shall remain in full force and effect, except as modified hereby. Nothing express or implied in this Agreement shall be construed as a release or discharge of the Borrower under the Existing Credit Agreement.

[Remainder of the page intentionally left blank]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first above written.

NATIONAL FUEL GAS COMPANY

By: /s/ D. P. Bauer

Name: D. P. Bauer

Title: Treasurer and

Principal Financial Officer

JPMORGAN CHASE BANK, NATIONAL
ASSOCIATION, as Administrative Agent,
as
Lender, as Swingline Lender and as an
Issuing Bank

By:

/s/ Darren Vanek

Name: Darren Vanek

Title: Executive Director & Authorized
Officer

BANK OF AMERICA, N.A., as Lender

By:

/s/ Thomas C. Strassenburgh

Name: Thomas C. Strassenburgh

Title: Senior Vice President

HSBC BANK USA, NATIONAL
ASSOCIATION,
as Lender

By:

/s/ Joseph D. Donovan

Name: Joseph D. Donovan

Title: Senior Vice President

WELLS FARGO BANK, NATIONAL
ASSOCIATION, as Lender

By:

/s/ Jeffrey Cobb

Name: Jeffrey Cobb

Title: Director

CANADIAN IMPERIAL BANK OF
COMMERCE, NEW YORK BRANCH, as
Lender

By:

/s/ Anju Abraham

Name: Anju Abraham

Title: Authorized Signatory

By: /s/ Robert Casey

Name: Robert Casey

Title: Authorized Signatory

CITIZENS BANK, N.A., as Lender

By:

/s/ Jason D. Houseman

Name: Jason D. Houseman

Title: Vice President

U.S. BANK NATIONAL ASSOCIATION,
as
Lender

By:

/s/ Mark Salierno

Name: Mark Salierno

Title: Vice President

M&T BANK, as Lender

By:

/s/ Susan Freed-Oestreicher

Name: Susan Freed-Oestreicher

Title: Vice President

PNC BANK, NATIONAL
ASSOCIATION, as
Lender

By:

/s/ Nathan Walvoord

Name: Nathan Walvoord

Title: Assistant Vice President

BRANCH BANKING AND TRUST
COMPANY,
as Lender

By:

/s/ DeVon J. Lang

Name: DeVon J. Lang

Title: Senior Vice President

FIRST NIAGARA BANK, N.A., as Lender

By:

/s/ Alexandra Wehr

Name: Alexandra Wehr

Title: Vice President, Senior
Relationship Manager

KEYBANK, NATIONAL ASSOCIATION,
as
Lender

By:

/s/ Thomas W. Heltz, II

Name: Thomas W. Heltz, II

Title: Vice President

THE BANK OF NEW YORK MELLON,
as
Lender

By:

/s/ Mark W. Rogers

Name: Mark W. Rogers

Title: Vice President

COMERICA BANK, as Lender

By:

/s/ Mark J. Leveille

Name: Mark J. Leveille

Title: Vice President, Comerica Bank

COMMITMENTS

<i>Institution</i>	<i>Multi-Year Facility Commitment</i>
JPMorgan Chase Bank, N.A.	\$85,000,000.00
Bank of America, N.A.	85,000,000.00
HSBC Bank USA, National Association	85,000,000.00
Wells Fargo Bank, N.A.	85,000,000.00
Canadian Imperial Bank of Commerce, New York Branch	57,500,000.00
Citizens Bank, N.A.	57,500,000.00
U.S. Bank National Association	57,500,000.00
M&T Bank	45,000,000.00
PNC Bank, National Association	45,000,000.00
Branch Banking and Trust Company	32,500,000.00
First Niagara Bank, N.A.	32,500,000.00
KeyBank, National Association	32,500,000.00
The Bank of New York Mellon	25,000,000.00
Comerica Bank	25,000,000.00
Total	\$750,000,000.00

<i>Institution</i>	<i>364-Day Facility Commitment</i>
JPMorgan Chase Bank, N.A.	\$65,000,000.00
Bank of America, N.A.	65,000,000.00
HSBC Bank USA, National Association	65,000,000.00
Wells Fargo Bank, N.A.	65,000,000.00
Canadian Imperial Bank of Commerce, New York Branch	40,000,000.00
Citizens Bank, N.A.	40,000,000.00
U.S. Bank National Association	40,000,000.00
KeyBank, National Association	40,000,000.00
M&T Bank	30,000,000.00
PNC Bank, National Association	30,000,000.00
Branch Banking and Trust Company	20,000,000.00
Total	\$500,000,000.00

REPAID INDEBTEDNESS

1. All outstanding principal amount of the 364-Day Facility Loans (as defined in the Existing Credit Agreement referred to below) under the Second Amended and Restated Credit Agreement dated as of September 30, 2015 (the “Existing Credit Agreement”), among the Borrower, JPMorgan Chase Bank, National Association, as Administrative Agent, and the Lenders party thereto (as amended).
-

ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the “ ***Assignment and Assumption*** ”) is dated as of the Effective Date set forth below and is entered into by and between [*Insert name of Assignor*] (the “ ***Assignor*** ”) and [*Insert name of Assignee*] (the “ ***Assignee*** ”). Capitalized terms used but not defined herein shall have the meanings given to them in the Credit Agreement identified below (as amended, the “ ***Credit Agreement*** ”), receipt of a copy of which is hereby acknowledged by the Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to the Assignee, and the Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Credit Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below (i) all of the Assignor’s rights and obligations in its capacity as a Lender under the Credit Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below (including any letters of credit, guarantees, and swingline loans included in such facilities) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Credit Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned pursuant to clauses (i) and (ii) above being referred to herein collectively as the “Assigned Interest”). Such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: _____
2. Assignee: _____
[and is an Approved Fund of [*identify Lender*] ¹]
3. Borrower(s): _____
4. Administrative Agent: _____, as the administrative agent under the Credit Agreement
5. Credit Agreement: The Third Amended and Restated Credit Agreement dated as of September 9, 2016 among National Fuel Gas Company, the

¹ Select as applicable.

Lenders parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, and the other agents parties thereto

6. Assigned Interest:

Facility Assigned ²	Aggregate Amount of Commitment/Loans for all Lenders	Amount of Commitment/Loans Assigned	Percentage Assigned of Commitment/Loans ³
	\$	\$	%
	\$	\$	%
	\$	\$	%

Effective Date: _____, 20__ [TO BE INSERTED BY ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

The Assignee agrees to deliver to the Administrative Agent a completed Administrative Questionnaire in which the Assignee designates one or more Credit Contacts to whom all syndicate-level information (which may contain material non-public information about the Borrower and its Related Parties or its securities) will be made available and who may receive such information in accordance with the Assignee’s compliance procedures and applicable laws, including Federal and state securities laws.

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR

[NAME OF ASSIGNOR]

By: _____
Title:

ASSIGNEE

[NAME OF ASSIGNEE]

By: _____
Title:

[Consented to and] ⁴ Accepted:

² Fill in the appropriate terminology for the types of facilities under the Credit Agreement that are being assigned under this Assignment (e.g. “**Revolving Commitment**,” “**Tranche A Commitment**,” “**Tranche B Commitment**,” etc.)

³ Set forth, to at least 9 decimals, as a percentage of the Commitment/Loans of all Lenders thereunder.

[NAME OF ADMINISTRATIVE AGENT], as
Administrative Agent

By _____
Title:

[Consented to:] ⁵

[NAME OF RELEVANT PARTY]

By _____
Title:

⁴ To be added if the consent of the Administrative Agent is required by the terms of the Credit Agreement.

⁵ To be added if the consent of the Borrower and/or other parties (e.g. Swingline Lender, Issuing Bank) is required by the terms of the Credit Agreement.

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

1.1 Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim and (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Credit Agreement, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Credit Agreement or any collateral thereunder, (iii) the financial condition of the Borrower, any of its Subsidiaries or Affiliates or any other Person obligated in respect of the Credit Agreement or (iv) the performance or observance by the Borrower, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under the Credit Agreement.

1.2. Assignee. The Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Credit Agreement, (ii) it satisfies the requirements, if any, specified in the Credit Agreement that are required to be satisfied by it in order to acquire the Assigned Interest and become a Lender, (iii) from and after the Effective Date, it shall be bound by the provisions of the Credit Agreement as a Lender thereunder and, to the extent of the Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it has received a copy of the Credit Agreement, together with copies of the most recent financial statements delivered pursuant to Section 5.01 thereof, as applicable, and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase the Assigned Interest on the basis of which it has made such analysis and decision independently and without reliance on the Administrative Agent or any other Lender, and (v) if it is a Non-U.S. Lender, attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Credit Agreement, duly completed and executed by the Assignee; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, the Assignor or any other Lender, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Credit Agreement, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Credit Agreement are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of the Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to the Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, and construed in accordance with, the law of the State of New York.

ASSUMPTION AGREEMENT

Reference is made to the Third Amended and Restated Credit Agreement dated as of September 9, 2016 (as amended and in effect on the date hereof, the “Credit Agreement”), among National Gas Fuel Company, the Lenders named therein and JPMorgan Chase Bank, National Association, as Administrative Agent for the Lenders. Terms defined in the Credit Agreement are used herein with the same meanings.

The Assuming Lender named below, effective as of the Commitment Increase Date set forth below, hereby (i) agrees to become a Lender under the Credit Agreement, (ii) assumes all the rights and obligations of a Lender under the Credit Agreement, and (iii) confirms that its Multi-Year Facility Commitment as of the Commitment Increase Date shall be in the amount and percentage set forth below (the “Commitment Increase”). The Assuming Lender hereby acknowledges receipt of a copy of the Credit Agreement. From and after the Commitment Increase Date, the Assuming Lender shall be a party to and be bound by the provisions of the Credit Agreement and, to the extent of the Commitment Increase, have the rights and obligations of a Lender thereunder.

This Assumption Agreement is being delivered to the Administrative Agent together with (i) if the Assuming Lender is a Non-U.S. Lender, any documentation required to be delivered by the Assuming Lender pursuant to Section 2.15(e) of the Credit Agreement, duly completed and executed by the Assuming Lender, and (ii) an Administrative Questionnaire in the form supplied by the Administrative Agent, duly completed by the Assuming Lender.

This Assumption Agreement shall be governed by and construed in accordance with the laws of the State of New York without giving effect to the principles of conflicts of law thereof (other than Section 5-1401 of the New York General Obligations Law).

Assumption Date:

Legal Name of Assuming Lender:

Assuming Lender’s Address for Notices:

Effective Date of Commitment Increase
 (“Commitment Increase Date”):

Facility	Principal Amount of Commitment Increase	Percentage of Commitment (set forth, to at least 8 decimals, the Commitment Increase as a percentage of the aggregate Commitments of all Lenders under the Credit Agreement)
Multi-Year Facility Commitment of Assuming Lender:	\$	%

The terms set forth above are hereby agreed to:

[Name of Assuming Lender],
as Lender

By: _____
Name:
Title:

The undersigned hereby consent to the within assumption:

National Fuel Gas Company

JPMorgan Chase Bank, National Association,
as Administrative Agent

By: _____
Name:
Title:

By: _____
Name:
Title:

U.S. TAX CERTIFICATE

(For Non-U.S. Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of September 9, 2016 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among National Fuel Gas Company, a New Jersey corporation (the "Borrower"), the Lenders party thereto, and JPMorgan Chase Bank, National Association, as administrative agent for the Lenders (in such capacity, the "Administrative Agent").

Pursuant to the provisions of Section 2.17 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. Person status on IRS Form W-8BEN-E or IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20[]

U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of September 9, 2016 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among National Fuel Gas Company, a New Jersey corporation (the "Borrower"), the Lenders party thereto, and JPMorgan Chase Bank, National Association, as administrative agent for the Lenders (in such capacity, the "Administrative Agent").

Pursuant to the provisions of Section 2.17 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN-E or IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20[]

U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of September 9, 2016 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among National Fuel Gas Company, a New Jersey corporation (the "Borrower"), the Lenders party thereto, and JPMorgan Chase Bank, National Association, as administrative agent for the Lenders (in such capacity, the "Administrative Agent").

Pursuant to the provisions of Section 2.17 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN-E or IRS Form W-8BEN or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN-E or IRS Form W-8BEN from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20[]

U.S. TAX CERTIFICATE

(For Non-U.S. Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Third Amended and Restated Credit Agreement dated as of September 9, 2016 (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among National Fuel Gas Company, a New Jersey corporation (the "Borrower"), the Lenders party thereto, and JPMorgan Chase Bank, National Association, as administrative agent for the Lenders (in such capacity, the "Administrative Agent").

Pursuant to the provisions of Section 2.17 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement or any other Loan Document, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN-E or IRS Form W-8BEN or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN-E or IRS Form W-8BEN from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20[]

**NATIONAL FUEL GAS COMPANY
COMPUTATION OF RATIO OF
EARNINGS TO FIXED CHARGES
UNAUDITED**

	For the Twelve Months Ended	Fiscal Year Ended September 30,				
	September 30, 2016	2015	2014	2013	2012	
EARNINGS:						
Net Income (Loss) Available for Common Stock	\$ (290,958)	\$ (379,427)	\$ 299,413	\$ 260,001	\$ 220,077	
Plus Income Tax Expense (Benefit)	(232,549)	(319,136)	189,614	172,758	150,554	
Less Investment Tax Credit (A)	(348)	(414)	(434)	(426)	(581)	
(Less Income) Plus Loss from Unconsolidated Subsidiaries	—	—	(397)	204	1,442	
Plus Distributions from Unconsolidated Subsidiaries	—	—	—	—	—	
Plus Interest Expense on Long-Term Debt	117,347	95,916	90,194	90,273	82,002	
Plus Other Interest Expense	3,697	3,555	4,083	3,838	4,238	
Less Amortization of Loss on Reacquired Debt	(529)	(529)	(529)	(721)	(1,093)	
Plus (Less) Allowance for Borrowed Funds Used in Construction	2,006	1,964	900	827	1,231	
Plus (Less) Other Capitalized Interest	238	4,191	3,560	1,801	2,992	
Plus Rentals (B)	9,479	13,866	13,700	14,204	12,958	
	\$ (391,617)	\$ (580,014)	\$ 600,104	\$ 542,759	\$ 473,820	
FIXED CHARGES:						
Interest & Amortization of Premium and Discount of Funded Debt	\$ 117,347	\$ 95,916	\$ 90,194	\$ 90,273	\$ 82,002	
Plus Other Interest Expense	3,697	3,555	4,083	3,838	4,238	
Less Amortization of Loss on Reacquired Debt	(529)	(529)	(529)	(721)	(1,093)	
Plus (Less) Allowance for Borrowed Funds Used in Construction	2,006	1,964	900	827	1,231	
Plus (Less) Other Capitalized Interest	238	4,191	3,560	1,801	2,992	
Plus Rentals (B)	9,479	13,866	13,700	14,204	12,958	
	\$ 132,238	\$ 118,963	\$ 111,908	\$ 110,222	\$ 102,328	
RATIO OF EARNINGS TO FIXED CHARGES	(D)	(C)	5.36	4.92	4.63	

(A) Investment Tax Credit is included in Other Income.

(B) Rentals shown above represent the portion of all rentals (other than delay rentals) deemed representative of the interest factor.

(C) The ratio coverage for the twelve months ended September 30, 2015 was less than 1:1. The Company would have needed to generate additional earnings of \$698,977 to achieve a coverage of 1:1 for the twelve months ended September 30, 2015.

(D) The ratio coverage for the twelve months ended September 30, 2016 was less than 1:1. The Company would have needed to generate additional earnings of \$523,855 to achieve a coverage of 1:1 for the twelve months ended September 30, 2016.

**Subsidiaries of National Fuel Gas Company
As of September 30, 2016**

<u>Legal Name</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
National Fuel Gas Distribution Corporation	New York
National Fuel Gas Supply Corporation	Pennsylvania
Seneca Resources Corporation	Pennsylvania
Empire Pipeline, Inc.	New York
National Fuel Resources, Inc.	New York
National Fuel Gas Midstream Corporation	Pennsylvania
NFG Midstream Covington, LLC	Pennsylvania
NFG Midstream Trout Run, LLC	Pennsylvania
NFG Midstream Processing, LLC	Pennsylvania
NFG Midstream Mt. Jewett, LLC	Pennsylvania
Seneca-NFG Midstream Owls Nest, LLC	Pennsylvania
NFG Midstream Tionesta, LLC	Pennsylvania
NFG Midstream Clermont, LLC	Pennsylvania
NFG Midstream Wellsboro, LLC	Pennsylvania

**NETHERLAND, SEWELL
& ASSOCIATES, INC.**

CONSENT OF INDEPENDENT PETROLEUM ENGINEERS AND GEOLOGISTS

We hereby consent to the reference to our audit report for Seneca Resources Corporation dated October 18, 2016, appearing in this National Fuel Gas Company Annual Report on Form 10-K.

We also consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-202877 and 333-198156) and Form S-8 (Nos. 333-206899, 333-202878, 333-165569, 333-51595, 333-55124, 333-102211, 333-102220, 333-117131, 333-130281 and 333-143701) of National Fuel Gas Company of our audit report dated October 18, 2016, appearing in this National Fuel Gas Company Annual Report on Form 10-K.

NETHERLAND, SEWELL & ASSOCIATES, INC.

By: /s/ Danny D. Simmons

Danny D. Simmons, P.E.

President and Chief Operating Officer

Houston, Texas
November 18, 2016

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-202877 and 333-198156) and Form S-8 (Nos. 333-206899, 333-202878, 333-165569, 333-51595, 333-55124, 333-102211, 333-102220, 333-117131, 333-130281 and 333-143701) of National Fuel Gas Company of our report dated November 18, 2016 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Buffalo, New York
November 18, 2016

CERTIFICATION

I, R. J. Tanski, certify that:

1. I have reviewed this annual report on Form 10-K of National Fuel Gas Company;
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: November 18, 2016

/s/ R. J. Tanski

R. J. Tanski

President and Chief Executive Officer

CERTIFICATION

I, D. P. Bauer, certify that:

1. I have reviewed this annual report on Form 10-K of National Fuel Gas Company;
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: November 18, 2016

/s/ D. P. Bauer

D. P. Bauer

Treasurer and Principal Financial Officer

NATIONAL FUEL GAS COMPANY

**Certification Pursuant to Section 906
of the Sarbanes-Oxley Act of 2002**

Each of the undersigned, R. J. TANSKI, President and Chief Executive Officer and D. P. BAUER, the Treasurer and Principal Financial Officer of NATIONAL FUEL GAS COMPANY (the "Company"), DOES HEREBY CERTIFY that:

1. The Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 (the "Report") fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934, as amended; and
2. Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, each of the undersigned has executed this statement this 18th day of November, 2016.

/s/ R. J. Tanski
President and Chief Executive Officer

/s/ D. P. Bauer
Treasurer and Principal Financial Officer

October 18, 2016

Mr. John McGinnis
 Seneca Resources Corporation
 1201 Louisiana Street, Suite 2600
 Houston, Texas 77002

Dear Mr. McGinnis:

In accordance with your request, we have audited the estimates prepared by Seneca Resources Corporation (Seneca), as of September 30, 2016, of the proved reserves and future revenue to the Seneca interest in certain oil and gas properties located in the United States. It is our understanding that the proved reserves estimated herein constitute all of the proved reserves owned by Seneca. We have examined the estimates with respect to reserves quantities, reserves categorization, future producing rates, future net revenue, and the present value of such future net revenue, using the definitions set forth in U.S. Securities and Exchange Commission (SEC) Regulation S-X Rule 4-10(a). The estimates of reserves and future revenue have been prepared in accordance with the definitions and regulations of the SEC and, with the exception of the exclusion of future income taxes, conform to the FASB Accounting Standards Codification Topic 932, Extractive Activities-Oil and Gas. We completed our audit on October 18, 2016. This report has been prepared for Seneca's use in filing with the SEC; in our opinion the assumptions, data, methods, and procedures used in the preparation of this report are appropriate for such purpose.

The following table sets forth Seneca's estimates of the net reserves and future net revenue, as of September 30, 2016, for the audited properties:

Category	All Properties			
	Net Reserves		Future Net Revenue (M\$)	
	Oil (MBBL)	Gas (MMCF)	Total	Present Worth at 10%
Proved Developed	28,771	1,132,616	1,220,082	733,831
Proved Undeveloped	238	541,959	178,313	11,970
Total Proved	29,009	1,674,575	1,398,395	745,801

For the purposes of this audit, the properties were divided into sections for the East Coast and West Coast Divisions. The following tables set forth Seneca's estimates of the net reserves and future net revenue by division, as of September 30, 2016, for the audited properties:

Division/Category	All Properties – By Division			
	Net Reserves		Future Net Revenue (M\$)	
	Oil (MBBL)	Gas (MMCF)	Total	Present Worth at 10%
East Coast				
Proved Developed	73	1,089,492	741,828	462,999
Proved Undeveloped	0	541,959	176,716	11,522
Total Proved	73	1,631,451	918,544	474,521
West Coast				
Proved Developed	28,698	43,124	478,254	270,832
Proved Undeveloped	238	0	1,597	448
Total Proved	28,936	43,124	479,851	271,280

In addition, the East Coast Division was further subdivided into sections for the Marcellus and Other Regions. The following tables set forth Seneca's estimates of the net reserves and future net revenue by region, as of September 30, 2016, for the audited East Coast Division properties:

East Coast Division – By Region				
Region/Category	Net Reserves		Future Net Revenue (M\$)	
	Oil (MBBL)	Gas (MMCF)	Total	Present Worth at 10%
Marcellus				
Proved Developed	25	1,087,104	759,038	474,115
Proved Undeveloped	0	541,959	176,716	11,522
Total Proved	25	1,629,063	935,754	485,637
Other				
Proved Developed ⁽¹⁾	48	2,388	-17,210	-11,116
Proved Undeveloped	0	0	0	0
Total Proved	48	2,388	-17,210	-11,116

⁽¹⁾ Future net revenue is negative after deducting estimated abandonment costs.

The oil volumes shown include crude oil and condensate. Oil volumes are expressed in thousands of barrels (MBBL); a barrel is equivalent to 42 United States gallons. Gas volumes are expressed in millions of cubic feet (MMCF) at standard temperature and pressure bases.

When compared on a field-by-field basis, some of the estimates of Seneca are greater and some are less than the estimates of Netherland, Sewell & Associates, Inc. (NSAI). However, in our opinion the estimates shown herein of Seneca's reserves and future revenue are reasonable when aggregated at the proved level and have been prepared in accordance with the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers (SPE Standards). Additionally, these estimates are within the recommended 10 percent tolerance threshold set forth in the SPE Standards. We are satisfied with the methods and procedures used by Seneca in preparing the September 30, 2016, estimates of reserves and future revenue, and we saw nothing of an unusual nature that would cause us to take exception with the estimates, in the aggregate, as prepared by Seneca.

The estimates shown herein are for proved reserves. Seneca's estimates do not include probable or possible reserves that may exist for these properties, nor do they include any value for undeveloped acreage beyond those tracts for which undeveloped reserves have been estimated. Reserves categorization conveys the relative degree of certainty; reserves subcategorization is based on development and production status. The estimates of reserves and future revenue included herein have not been adjusted for risk.

Prices used by Seneca are based on the 12-month unweighted arithmetic average of the first-day-of-the-month price for each month in the period October 2015 through September 2016. For oil volumes, the average regional posted prices are adjusted by field for quality, transportation fees, and market differentials. For gas volumes, the average regional spot prices are adjusted by field for energy content, transportation fees, and market differentials. All prices are held constant throughout the lives of the properties. The average adjusted product prices weighted by production over the remaining lives of the properties are \$35.66 per barrel of oil and \$1.636 per MCF of gas. By division, these average adjusted prices are \$37.74 per barrel of oil and \$1.590 per MCF of gas for the East Coast properties and \$35.65 per barrel of oil and \$3.372 per MCF of gas for the West Coast properties. Average index prices for each division are shown in the following table:

Division	Oil		Gas	
	Pricing Index	Average Posted Price (\$/Barrel)	Pricing Index	Average Spot Price (\$/MMBTU)
East Coast	ConocoPhillips 66 West Texas Intermediate	38.30	Appalachia-Dominion South Point	1.275
	ARG-Group 1 (OH/PA/NY)	40.68	Canadian Gas-Dawn, Ontario	2.402
			Citygates-Transco Zone 5 Delivered	2.287
			Citygates-Transco Zone 6 NY	1.837
			Citygates-Transco Zone 6 Non-NY	1.796
			Tennessee Zone 4-300 Leg	1.150
			Transco Leidy Line Receipts	1.206
			Mississippi-Alabama-Transco Zone 4	2.265
			Henry Hub Gas Daily	2.283
			Tennessee Zone 4-313 Pool	1.330
West Coast	ConocoPhillips 66 West Texas Intermediate	38.30	Henry Hub Gas Daily	2.283
	CA Buena Vista Oil Average Calculation	40.67		
	CA Midway Sunset Oil Average Calculation	35.36		

Operating costs used by Seneca are based on historical operating expense records. These costs include the per-well overhead expenses allowed under joint operating agreements along with estimates of costs to be incurred at and below the district and field levels. Operating costs have been divided into field-level costs, per-well costs, and per-unit-of-production costs. Headquarters general and administrative overhead expenses of Seneca are included to the extent that they are covered under joint operating agreements for the operated properties. Capital costs used by Seneca are based on authorizations for expenditure and actual costs from recent activity. Capital costs are included as required for workovers, new development wells, and production equipment. Abandonment costs used are Seneca's estimates of the costs to abandon the wells, platforms, and production facilities, net of any salvage value. Operating, capital, and abandonment costs are not escalated for inflation.

The reserves shown in this report are estimates only and should not be construed as exact quantities. Proved reserves are those quantities of oil and gas which, by analysis of engineering and geoscience data, can be estimated with reasonable certainty to be economically producible; probable and possible reserves are those additional reserves which are sequentially less certain to be recovered than proved reserves. Estimates of reserves may increase or decrease as a result of market conditions, future operations, changes in regulations, or actual reservoir performance. In addition to the primary economic assumptions discussed herein, estimates of Seneca and NSAI are based on certain assumptions including, but not limited to, that the properties will be developed consistent with current development plans as provided to us by Seneca, that the properties will be operated in a prudent manner, that no governmental regulations or controls will be put in place that would impact the ability of the interest owner to recover the reserves, and that projections of future production will prove consistent with actual performance. If the reserves are recovered, the revenues therefrom and the costs related thereto could be more or less than the estimated amounts. Because of governmental policies and uncertainties of supply and demand, the sales rates, prices received for the reserves, and costs incurred in recovering such reserves may vary from assumptions made while preparing these estimates.

It should be understood that our audit does not constitute a complete reserves study of the audited oil and gas properties. Our audit consisted primarily of substantive testing, wherein we conducted a detailed review of all properties. In the conduct of our audit, we have not independently verified the accuracy and completeness of information and data furnished by Seneca with respect to ownership interests, oil and gas production, well test data, historical costs of operation and development, product prices, or any agreements relating to current and future operations of the properties and sales of production. However, if in the course of our examination something came to our attention that brought into question the validity or sufficiency of any such information or data, we did not rely on such information or data until we had satisfactorily resolved our questions relating thereto or had independently verified such information or data. Our audit did not include a review of Seneca's overall reserves management processes and practices.

We used standard engineering and geoscience methods, or a combination of methods, including performance analysis, volumetric analysis, and analogy, that we considered to be appropriate and necessary to establish the

conclusions set forth herein. As in all aspects of oil and gas evaluation, there are uncertainties inherent in the interpretation of engineering and geoscience data; therefore, our conclusions necessarily represent only informed professional judgment.

Supporting data documenting this audit, along with data provided by Seneca, are on file in our office. We are independent petroleum engineers, geologists, geophysicists, and petrophysicists; we do not own an interest in these properties nor are we employed on a contingent basis.

QUALIFICATIONS

NSAI performs consulting petroleum engineering services under Texas Board of Professional Engineers Registration No. F-2699. We provide a complete range of geological, geophysical, petrophysical, and engineering services, and we have the technical expertise and ability to perform these services in any oil and gas producing area in the world. The staff are familiar with the recognized industry reserves and resources definitions, specifically those promulgated by the SEC, by the Alberta Securities Commission, and by the Society of Petroleum Engineers, Society of Petroleum Evaluation Engineers, World Petroleum Council, and American Association of Petroleum Geologists. The technical persons primarily responsible for conducting this audit meet the requirements regarding qualifications, independence, objectivity, and confidentiality set forth in the SPE Standards.

This evaluation has been led by Mr. Richard B. Talley, Jr. and Mr. Edward C. Roy III. Mr. Talley is a Senior Vice President and Mr. Roy is a Vice President in the firm's Houston office at 1301 McKinney Street, Suite 3200, Houston, Texas 77010. Mr. Talley is a Licensed Professional Engineer (Texas Registration No. 102425). He has been practicing petroleum engineering consulting at NSAI since 2004 and has over 5 years prior industry experience. Mr. Roy is a Licensed Professional Geoscientist (Texas Registration No. 2364). He has been practicing petroleum geoscience consulting at NSAI since 2008 and has over 11 years prior industry experience.

Sincerely,

NETHERLAND, SEWELL & ASSOCIATES, INC.

Texas Registered Engineering Firm F-2699

/s/ C.H. (Scott) Rees III

By:

C.H. (Scott) Rees III, P.E.

Chairman and Chief Executive Officer

/s/ Richard B. Talley, Jr.

By:

Richard B. Talley, Jr., P.E. 102425
Senior Vice President

/s/ Edward C. Roy III

By:

Edward C. Roy III, P.G. 2364
Vice President

Date Signed: October 18, 2016

Date Signed: October 18, 2016

RBT:JMH

Please be advised that the digital document you are viewing is provided by Netherland, Sewell & Associates, Inc. (NSAI) as a convenience to our clients. The digital document is intended to be substantively the same as the original signed document maintained by NSAI. The digital document is subject to the parameters, limitations, and conditions stated in the original document. In the event of any differences between the digital document and the original document, the original document shall control and supersede the digital document.

Exploration & Production



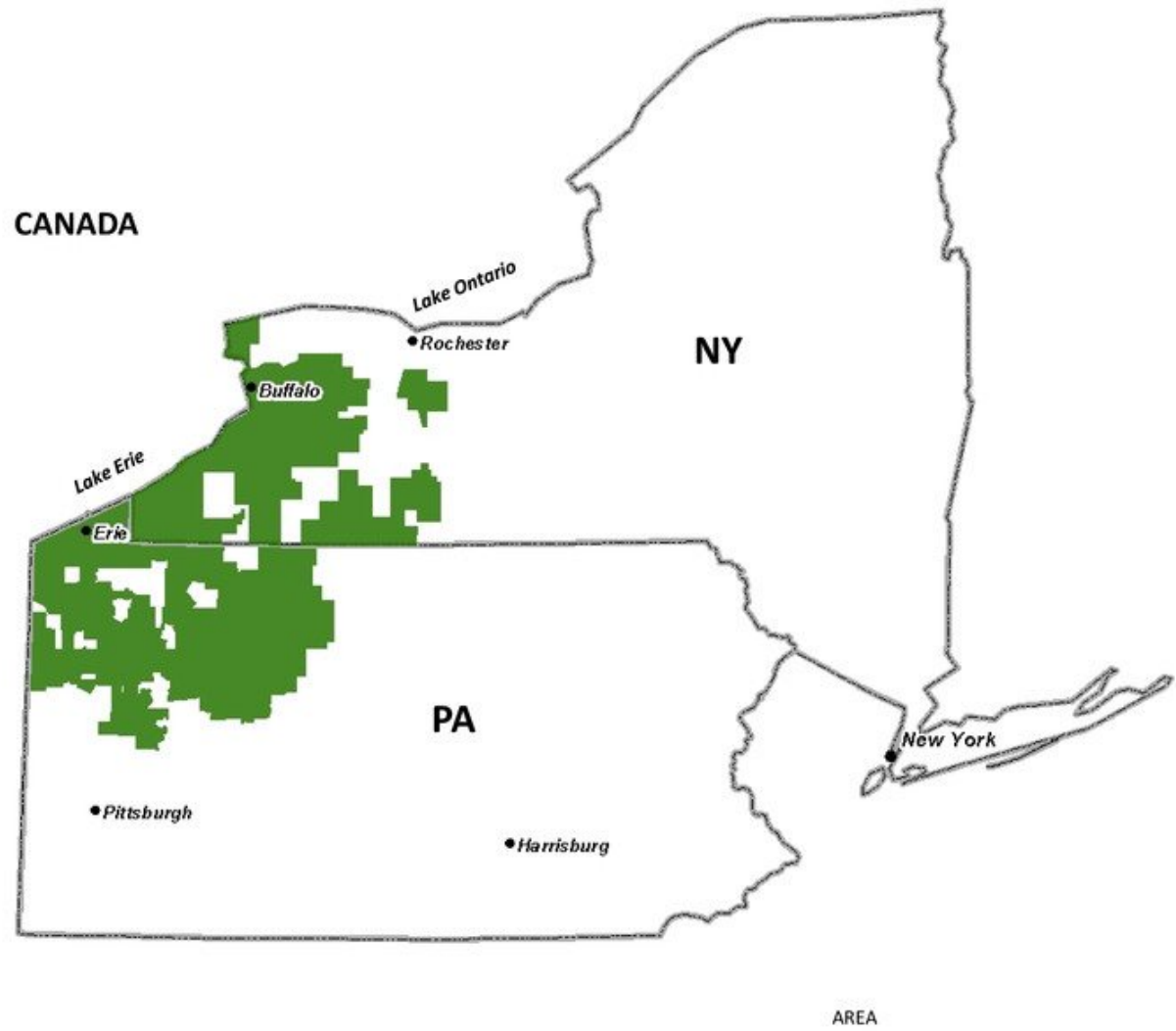
Pipeline & Storage



Gathering



Utility



Energy Marketing

