



# **NATIONAL FUEL GAS COMPANY**

SUMMARY ANNUAL REPORT 2016



## **HOMEGROWN COMPANY, HOMETOWN TEAM**

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*FOR MORE THAN A CENTURY, THE OPERATING  
SUBSIDIARIES OF NATIONAL FUEL HAVE BEEN FUELING  
THE DAILY LIVES OF THE FAMILIES AND BUSINESSES  
THAT CALL OUR REGION HOME. WITH EACH WELL WE DRILL  
AND EVERY PIPELINE WE BUILD, WE ARE DEDICATED  
TO PROTECTING THE ENVIRONMENT AND THE HEALTH AND  
SAFETY OF THE MEMBERS OF OUR COMMUNITIES.  
AS THE HOMETOWN ENERGY TEAM, WE ARE UNIQUELY  
POSITIONED TO MAINTAIN OUR COMMITMENT SO THAT  
THE TREMENDOUS BENEFITS OF OUR HOMEGROWN ENERGY  
RESOURCE CAN BE PROVIDED FOR YEARS TO COME.*

## UPSTREAM

National Fuel's upstream business is conducted through its exploration and production subsidiary, Seneca Resources Corporation, with natural gas-focused operations in Pennsylvania and oil-focused operations in California. Seneca's ongoing emphasis on managing the sourcing, delivery and recycling of water associated with its Appalachian development program has sought to minimize environmental impacts while driving down the Company's well costs to the lowest amongst peers in the basin. The rig pictured below is drilling wells in both the Marcellus and Utica Shale formations on a multi-well pad in Clermont, Pa.



## MIDSTREAM

National Fuel's midstream operations are carried out by the interstate pipeline and storage subsidiaries, National Fuel Gas Supply Corporation and Empire Pipeline, Inc., and the gathering subsidiary, National Fuel Gas Midstream Corporation. National Fuel is expanding and modernizing its pipelines to move more clean-burning, low-cost natural gas supplies being produced in Appalachia to diverse markets served by the North American pipeline grid. Pictured below, Midstream employees oversee the continued construction of the Clermont Gathering System, a key link that connects Seneca's production to the interstate pipeline network.



## DOWNSTREAM

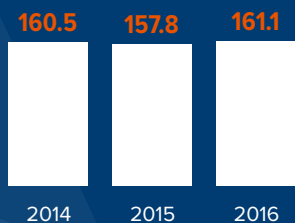
National Fuel's utility and energy marketing subsidiaries, operated by National Fuel Gas Distribution Corporation and National Fuel Resources, Inc., respectively, provide safe and affordable natural gas services to residential, commercial and industrial customers in New York and Pennsylvania. The Utility's ongoing investment in its pipeline network ensures the continued safety of our systems and enhances service reliability. Our role in providing access to low-cost, domestic energy has been an important driver for economic growth in the Company's service territories, including Buffalo, N.Y., where a utility employee reads a bank of meters in the picture below.



**785,000**  
Net Acres in Pennsylvania

**3,000,000** (Bbl)  
Annual California  
Oil Production

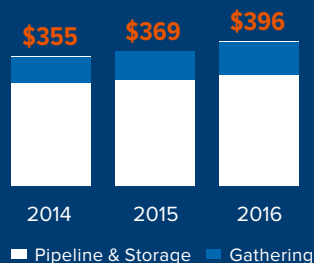
### SENECA RESOURCES ANNUAL PRODUCTION (Bcfe)



**4+** (Bcf per day)  
Interstate Pipeline Transportation  
Capacity Under Contract

**1+** (Bcf per day)  
Gathering System Capacity  
for Seneca Resources

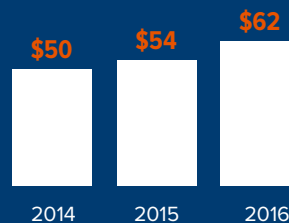
### MIDSTREAM OPERATING REVENUES (millions)



**742,235**  
Utility Customer Accounts  
in N.Y. & Pa.

**1.5** (Bcf per day)  
Delivery System Capacity  
on Coldest Winter Day

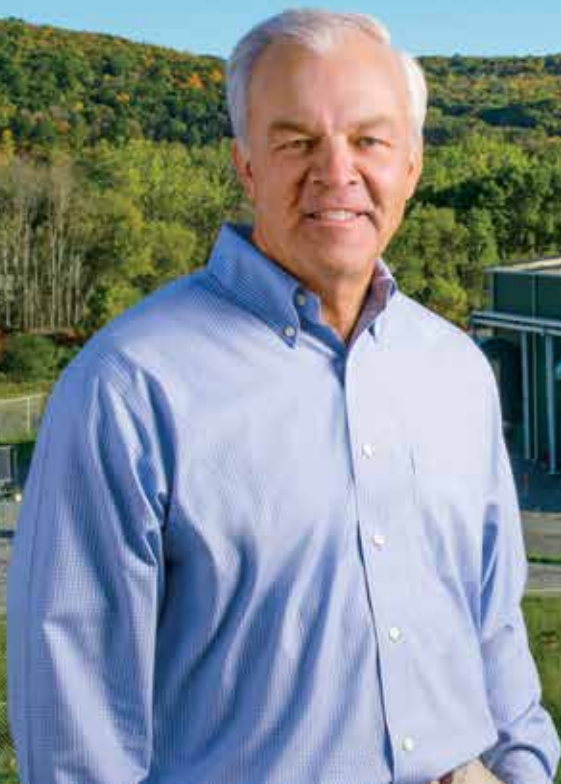
### UTILITY INVESTMENT IN SAFETY (millions)



# DEAR SHAREHOLDERS

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*WE FACED A NUMBER OF CHALLENGES DURING OUR 2016 FISCAL YEAR. I AM HAPPY TO REPORT THAT WE MET THOSE CHALLENGES AND THAT THE FINANCIAL FOOTING OF YOUR COMPANY REMAINS STRONG. THE OIL AND NATURAL GAS INDUSTRY IN WHICH WE PARTICIPATE, PERHAPS MORE THAN ANY OTHER, IS KNOWN FOR ITS CYCLES OF BOOM AND BUST. SINCE NATIONAL FUEL'S INCORPORATION IN 1902—THE EARLY STAGES OF THE INDUSTRY—WE HAVE SEEN AND BEEN SHAPED BY SUCH CYCLES, EMERGING STRONGER FROM EACH ONE AND BETTER PREPARED FOR EACH NEW TURN OF EVENTS. THE CURRENT ERA OF ENERGY ABUNDANCE USHERED IN BY AMERICA'S SHALE REVOLUTION, HAS BEEN AN UNPRECEDENTED, TRANSFORMATIVE PERIOD FOR OUR COMPANY, OUR INDUSTRY, AND OUR NATION'S ECONOMY.*



**Ron Tanski, President and CEO**, is pictured in front of Supply Corporation's compressor station in Hinsdale N.Y., which was placed in service in fiscal 2016 as part of the Northern Access 2015 expansion pipeline project.

We have structured the Company in a manner that allows us to manage through the short-term vagaries of commodity price declines and adverse weather events and prosper over the long term. As the rapid growth in domestic natural gas and oil production continued to push commodity prices and revenues lower over the last few years, we changed the focus of our operations. We learned to drill wells faster and at less cost, using innovation and technology to coax more reserves out of the ground. However, as the economic realities of the unbalanced market picture set in, it became increasingly clear that decreasing cash flows would eventually disrupt our ability to continue our impressive growth trajectory.

As I was writing last year's shareholder letter, oil and gas prices in the U.S. crashed to decade lows, declining more than 60% in just 18 months. Over the course of fiscal 2016, the sustained decline in commodity prices resulted in lower cash flow at Seneca Resources, our exploration and production subsidiary, and caused a continuation of the series of non-cash write-downs of our oil and gas properties that began last year. Those write-downs resulted in a consolidated net loss for fiscal 2016. A record warm winter, on the heels of the previous year's record cold winter, did not help matters either. While somewhat mitigated by our New York jurisdiction's weather normalization clause, the warm winter resulted in lower customer usage and reduced earnings in the Utility segment.

The impact of lower prices on the broader industry, however, was much more drastic and longer lasting. Many of our peers, having taken on increasing amounts of debt over the years to finance unchecked growth, found themselves with limited financial and operational flexibility. In order to preserve cash, producers pulled back sharply on their capital budgets, some suspending their drilling programs and temporarily abandoning the completion of thousands of drilled wells. A number of midstream companies, anticipating a decline in revenues from the lower production stream, cut shareholder dividends and distributions. Once creditworthy companies saw their credit ratings slashed multiple notches to below investment grade. Numerous companies were forced to sell assets or issue dilutive equity. Many were forced into bankruptcy or a restructuring.

National Fuel, on the other hand, remains in a much different position. As a fully integrated U.S. natural gas company, we had the financial stability to endure the trough of the cycle. The predictable earnings and cash flows provided by our rate-regulated Pipeline & Storage and Utility businesses provided a measure of business stability that few in today's marketplace enjoy. These businesses continue to provide a strong foundation that fully supports our ability to fund our dividend, meet our financial obligations, and maintain the safety of our pipeline systems.

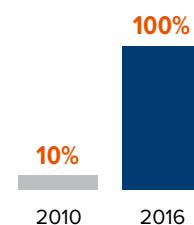
At this time last year, our team was making preparations to begin construction on our Northern Access 2016 project, a \$455 million expansion of our interstate pipeline system designed to provide Seneca with a key outlet for its natural gas production. Seneca, meanwhile, was operating three drilling rigs in Pennsylvania, developing an inventory of reserves that would begin flowing into the pipeline on the expected November 2016 in-service date. As natural gas prices continued to erode last winter, it simply did not make economic sense to invest capital to grow our production and sell it at extremely low prices. At the same time, however, we thought it important to maintain a drilling program that would utilize our existing pipeline infrastructure and preserve the operational efficiencies our talented team at Seneca had achieved, which has been a core competitive advantage for us.

We took two important steps to adjust our operating plan and conserve cash. First, we elected to pare back our drilling program, dropping two of the three rigs we had been operating in the Marcellus. This slowed down our build-out of the Clermont Gathering System and allowed us to revise the in-service date of our Northern Access pipeline project.

Second, we entered into a joint development agreement (JDA) with an investor to develop 75 Marcellus wells on our owned acreage in our Western Development Area, or WDA. By utilizing external capital to fund a majority of our drilling program during fiscal 2016 and 2017, we were able to instantly strengthen our financial position and liquidity while only giving up a small portion of the more than 1,000 Marcellus locations we plan to develop in the WDA over the next decade. Furthermore, we were able to maintain drilling operations at levels needed to

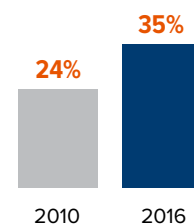
### HOMEGROWN NATURAL GAS SUPPLIES

*% of Utility Segment Annual Gas Purchases from Northeast U.S. Market Area*



### FUELING THE ELECTRIC GRID

*% of U.S. Electrical Generation from Natural Gas (Source: EIA)*



**“THE FLEXIBILITY AFFORDED TO US BY OUR DIVERSE COLLECTION OF ASSETS ALLOWED US TO REDUCE OUR 2016 CAPITAL BUDGET BY MORE THAN \$600 MILLION FROM THE PREVIOUS YEAR.”**

generate enough gross production to utilize and profit from our gathering and pipeline assets.

The flexibility afforded to us by our diverse collection of assets allowed us to reduce our 2016 capital budget by more than \$600 million from the previous year. We were able to comfortably sustain and grow our dividend for the 46th consecutive year. We maintained our investment grade credit rating, and we were not forced to issue dilutive equity in order to do so. Our actions fortified our finances while preserving the upside value of our long-term upstream and midstream growth opportunities in Appalachia. Simply put, our integrated model worked as designed.

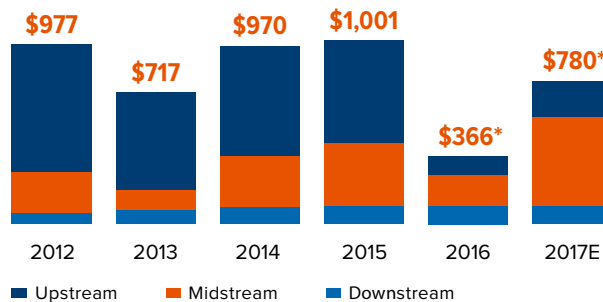
We believe that our unique business structure offers the best platform for us to execute our integrated corporate strategy in Appalachia. As the pricing outlook has improved going into 2017, we are once again looking forward to resuming our growth plans. An important component of our strategy is the continued development of our gathering and interstate pipeline networks. Our most near-term, large-scale project is our Northern Access pipeline. This project will allow Seneca to significantly increase its contracted pipeline capacity to move production out of the Appalachian basin. With more than 1,000 undeveloped Marcellus Shale well locations in our WDA, and perhaps a similar amount of well locations in the deeper Utica Shale, we believe our resource base is large enough to keep our production at levels that will fill our pipelines for decades. We expect to generate value every step of the way—from

the sale of our royalty-free production on through to the utilization of our gathering and interstate pipeline systems.

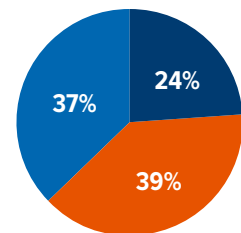
For decades, our utility customers in western New York and northwestern Pennsylvania relied on natural gas supplies that were produced in Canada and the Texas / Louisiana Gulf Coast and delivered to them through interstate pipelines. Today, prolific production is sourced from domestic onshore shale basins, but the existing interstate pipeline network is simply not equipped to accommodate that geographic shift in supply. As a result, many potential customers, particularly in the Northeast, are unable to efficiently access these new supplies. Northern Access is one of more than a dozen major pipeline projects that have been proposed in the region that are specifically designed to connect demand centers—utilities, gas-fired power generation facilities and industry—with the largest and cheapest source of energy on the continent. We have the opportunity to both grow our Company and provide multiple benefits to our region.

Across the nation, there is a need to modernize and replace aging infrastructure. Just like roads and bridges, our nation’s natural gas pipeline infrastructure, much of which was constructed during the post-World War II era, requires constant monitoring and continuous investment to ensure that we can all safely rely on the essential, everyday benefits that natural gas provides. We will continue to invest millions to upgrade and ensure the safety of our pipeline network.

**INVESTING IN OUR FUTURE**  
Consolidated Capital Expenditures (millions)



**DIVERSITY AND BALANCE**  
Percent of Consolidated Total Assets by Segment



\*Net of \$157 million (2016) and \$25 million (2017) of JDA proceeds

While we and the industry as a whole stand ready to meet our energy infrastructure needs, we are continuing to see an increasing amount of pushback from groups seeking to slow or even stop our progress. Concerted efforts by some vocal environmental groups have disrupted established regulatory processes and created a great amount of uncertainty in energy policy at all levels of government. Certain groups are fundamentally opposed to any form of fossil fuel development, with their supposition that natural gas and renewable energy cannot co-exist in a world focused on reversing the effects of climate change. We take a different view, which you might expect from a company whose core business is the responsible development and delivery of energy from fossil fuels.

We believe that natural gas is a critical and absolutely necessary component of our nation's energy mix if we are to achieve our country's long-term economic and environmental goals. Limiting development of this abundant resource would actually reverse the country's recent progress in reducing greenhouse gas emissions. Accounting for just half of the carbon dioxide emissions when compared to coal, natural gas is now the largest fuel source used to generate electricity. If we are to keep our 742,235 utility customers warm on the coldest winter days, keep their lights on, and continue to drive down emissions, natural gas will be an essential long-term partner, not a competitor, with renewable energy. Even our New York Governor's ambitious plan to have 50 percent of the state's power generated from renewable

sources by the year 2030 implicitly recognizes that 50 percent will still be generated via fossil fuels.

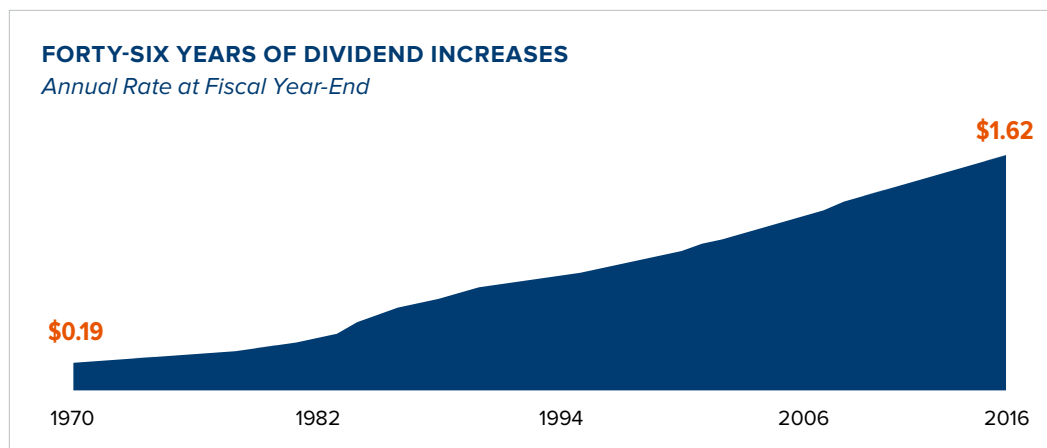
The dedicated employees of National Fuel are uniquely positioned to play an important role in our region's energy future. Our core competencies include developing oil and natural gas resources, and constructing and operating natural gas delivery infrastructure. We have been doing it safely and responsibly here in western New York and northwestern Pennsylvania for more than a century, and in California for nearly 30 years. Our roots in the utility business provide us with unique insight into the needs and concerns of the people and communities that rely on our services. I am proud of our employees who live and support their families here. They have a vested interest in ensuring that all of our activities promote the health and safety of our communities, and never compromise the quality of our environment. I am also proud that, during a difficult period, we delivered another solid year of performance for our shareholders. Yes, I would have preferred that our entire industry could have avoided the market forces that caused a decline in the value of our public equity over the past two years, but I believe National Fuel is well positioned to responsibly develop our great collection of energy assets for many years to come.

*Ronald J. Tanski*

**Ronald J. Tanski**  
President and Chief Executive Officer

January 10, 2017

**“WE BELIEVE THAT NATURAL GAS IS A CRITICAL AND ABSOLUTELY NECESSARY COMPONENT OF OUR NATION’S ENERGY MIX IF WE ARE TO ACHIEVE OUR COUNTRY’S LONG-TERM ECONOMIC AND ENVIRONMENTAL GOALS.”**



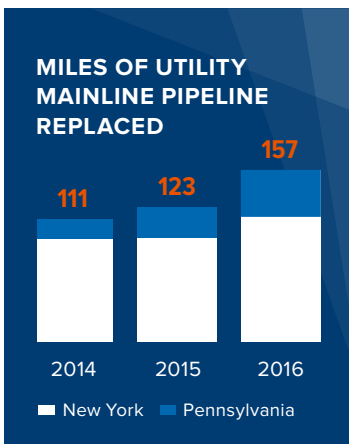
# SAFETY IS JOB ONE

National Fuel is an integral part of an industry that has embraced a culture of safety. Our highest priority has always been the safety of our customers, employees and the communities where we operate.

With more than 14,000 miles of pipelines, our Utility system is sizeable and complex. Over the years, advances in materials, such as the improvement of plastic pipe technology, have allowed us to further enhance system safety. Two decades ago, our Utility segment began an ambitious program to accelerate the modernization of its system. Since that time, the company has made remarkable progress, eliminating more than 45 percent of its bare steel, cast iron and wrought iron mains and more than 62 percent of its bare steel services across the system. In fiscal 2016, the Utility segment invested nearly \$62 million to ensure the continued safety of its systems, eliminating 157 miles of older mains and 4,106 bare steel services, our highest one-year totals ever.

While safety will always be the number one motivation for our modernization efforts, we gain an additional benefit in reduced greenhouse gas emissions. In the last five years, estimated greenhouse gas emissions from utility plant declined 11 percent. We expect this trend to continue as we modernize our system with materials and technologies that reduce our carbon footprint.

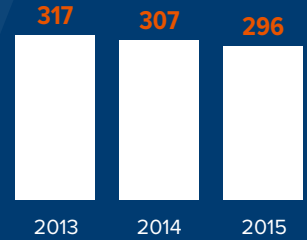
The Pipeline & Storage segment also has a modernization program and has been leveraging its expansion projects as an opportunity to increase investments in system upgrades. Over the past five years, the segment has invested nearly \$260 million in this effort. Earlier in fiscal 2016, Supply completed the replacement of 23 miles of large diameter transmission







**UTILITY GHG EMISSIONS  
FROM PHYSICAL PLANT\***  
(thousand metric tons of CO<sub>2</sub>e)



\*EPA Subpart W  
(reported on calendar year basis)

pipeline along its Line N system in Beaver County, Pa., which was originally installed in 1947. We also continue to upgrade equipment at our compressor facilities to enhance safety while reducing emissions and our impact on the environment.

While we focus on maintaining our existing systems, we ensure that our new pipelines and facilities are built to last and designed to operate safely for generations. Since 2010, we have invested more than \$1 billion installing gathering infrastructure and expanding our interstate pipeline systems. Every pipeline and gas-related facility is built to meet or exceed a comprehensive set of construction standards and regulatory requirements.

We also value the personal safety of the workers who operate our systems. Our number one goal is to have each employee and contractor return each day in the same or better condition than they arrived. Across the Company, we have implemented safety programs and management practices to ensure that safety. These include daily safety meetings at active construction sites, work rules, regular training requirements for all Company employees, cross-functional management audits, and frequent emergency preparedness and response drills with local first responders.

In our Utility and Pipeline & Storage segments, our safety record has significantly improved over the last eight years. OSHA recordable injury and Days Away/Restricted/Transfer (DART) injury rates have declined 47 percent and 43 percent, respectively. Seneca Resources recently participated in the American Exploration and Production Council's annual peer benchmarking study, which surveyed 27 peer companies on safety performance. For calendar 2015, Seneca ranked best in the peer group in Lost Time Incident and DART injury rates. Additionally, OSHA recordable injury rates were low, making Seneca a top 10 performer.

While we are proud of our safety record, we are also experienced enough to know that we can never become complacent. National Fuel will never waver on our commitment to promoting and improving the safety of our customers, employees and the communities where we operate. From the very top of the organization on down to the boots in the field, safety will always be our top priority. ■



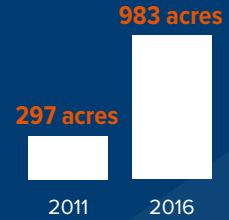
2013



2016

## SENECA MARCELLUS DEVELOPMENT

Average Subsurface Area Developed Per Pad



TEN-WELL MARCELLUS PAD IN LYCOMING COUNTY, PA.

# MINIMIZING ENVIRONMENTAL FOOTPRINT, MAXIMIZING CORPORATE VALUE

National Fuel is a unique company in today’s energy marketplace. Our geographic operating area and the integration of our business operations provide a number of advantages that allow us to compete successfully across the natural gas value chain and position us to be a responsible steward of the environment. We conduct our activities in a way that maximizes the value of our integrated assets while respecting and minimizing our impact on the surrounding environment.

In our upstream energy development operations, Seneca goes to great lengths to ensure its work has minimal impact on land, water, and wildlife. The large, contiguous nature of our acreage in Pennsylvania allows us flexibility to plan our activities to minimize landscape disruption. Today, we are often able to drill 10 or more wells from a single surface pad and extend the lateral length of our horizontal wells up to a mile and a half. These practices have the added benefits of lowering our development costs through improved efficiencies and maximizing the natural gas reserves we are able to access.

Seneca’s long-term planning also considers future reuse of drilling pads for development of other shale formations, such as the Utica and Geneseo. In fiscal 2016, we began work to appraise the productivity of the Utica Shale on our WDA acreage. Further development of the Utica formation, which underlies the developed Marcellus, would allow us to reuse existing production infrastructure originally built to serve our Marcellus development program.

To minimize methane emissions, Seneca avoids venting or flaring during a well’s initial production whenever possible. We employ “green completion” techniques on nearly all of our development wells. Our integrated model allows Seneca to work closely with our gathering subsidiary to ensure that gathering pipelines are installed and ready so that our production can flow on day one, limiting operational delays and loss of revenue.

Once a well pad is placed into production, Seneca takes steps to shrink its operational presence, carefully restoring native vegetation around the well pad's perimeter. Among other initiatives, we regularly consult with state and federal resource agencies to design and implement strategies and improvements aimed at enhancing existing wildlife habitats.

Meanwhile our Pipeline & Storage segment has undertaken a significant expansion of its systems in response to growing demand for pipeline infrastructure in Appalachia. Since 2010, we have added more than 1.5 Bcf per day of new capacity for Appalachian producers, including Seneca. Most of this growth has been accomplished by upgrading and installing new compression facilities located across the system, allowing us to transport more gas through existing pipelines. When we construct new compressor facilities, we take great care to minimize our impact to the environment and the surrounding communities.

We have also added needed transmission pipelines in certain areas to access the Appalachian supplies. Wherever possible, we aim to route new pipelines along existing rights of way to minimize land disturbance. We regularly employ minimally intrusive construction techniques to avoid disturbing environmentally sensitive areas such as streams and wetlands. After construction, National Fuel restores all rights of way and work areas as soon as possible.

For decades, we have responsibly operated within the boundaries of national forests, and state parks, forests and game lands. Our pipelines traverse under streams and rivers, through wetlands and farm fields, beneath hiking and biking trails and golf courses, under our sidewalks, streets and yards and up to our customers' homes. Most people don't know that our pipelines are there because our presence and operations generally do not disrupt their daily lives. On most days, we remain relatively invisible to the vast majority of the population, yet every day we provide the energy source that heats our homes, cooks our food and generates our electricity in a safe, reliable and affordable fashion. ■

### TUSCARORA LATERAL PIPELINE IN STEUBEN COUNTY, N.Y.

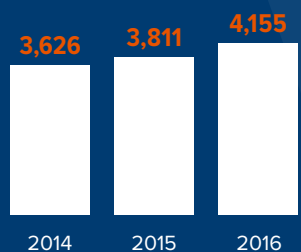
2015



2016



**INTERSTATE PIPELINE  
TRANSPORTATION  
CAPACITY UNDER  
CONTRACT**  
*(MDth per day)*



# PROTECTING WATER AND AIR THROUGH INNOVATION AND TECHNOLOGY

Water management is a high priority for Seneca Resources. In Appalachia, each Marcellus well that Seneca completes requires nearly 250,000 Bbls of water before it's ready for production, enough to fill 15 Olympic-sized swimming pools. In California, water is converted to steam as part of the process to produce the heavy crude oil reserves found in the region.

In Pennsylvania, Seneca has more than 1,100 well locations in the Marcellus that we plan to develop over the next decade and beyond. To be successful over the long-term, Seneca has been focused on developing innovative solutions and adopting technologies to manage our water needs in an environmentally and economically sustainable manner.

Effective water management practices have enabled Seneca to substantially reduce fresh water consumption and drive down well costs. Leveraging the advantages of its large, contiguous acreage position in Pennsylvania, Seneca started its own water logistics company, Highland Field Services, to manage all of Seneca's regional water needs from sourcing through delivery, storage and disposal. Over the past two years, Highland has invested more than \$20 million in water infrastructure, including a water treatment plant in McKean County, Pa., which is by volume the industry's largest water management facility in the state.

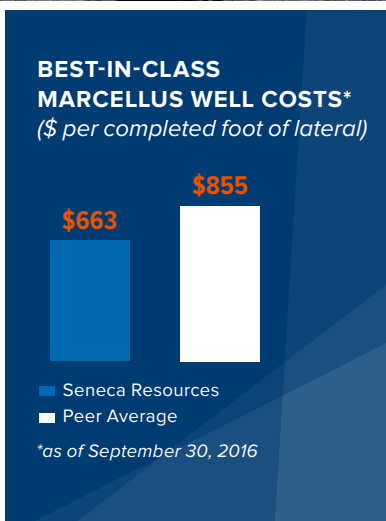
Today, Seneca recycles 100 percent of its produced water from existing Marcellus and Utica wells. Highland also provides disposal solutions for other shale producers in the region who deliver their own produced water to Highland's centralized storage facility for reuse by Seneca, directly offsetting Seneca's freshwater needs for drilling operations.

**100%**  
of Seneca's  
produced water in  
Appalachia was  
recycled in 2016



**62%**  
of water used in  
completion of new  
wells was recycled





Seneca's water recycling efforts have resulted in tremendous environmental and financial benefits. In 2016, Seneca's fresh water consumption averaged only 38 percent of water used in well completions, a decrease from 65 percent in 2015. From a cost standpoint, Seneca's operational efficiencies have lowered its water costs from over \$4 per Bbl in 2014 to under \$1 per Bbl in 2016, a savings of nearly \$1 million per well. Furthermore, better than 90 percent of water used by Seneca in hydraulic fracturing operations in 2016 was transported by Highland's water pipeline system, which eliminated an estimated 70,000 truck trips and associated emissions and lessened the impact on local roads.

Seneca is focused on reducing emissions and energy consumption through the upgrade and modernization of its production equipment and emission control systems. Seneca pioneered the industry's onshore use of ultrasonic methane detection technology on its Marcellus well pads. Now, with more than 100 units in place, Seneca is able to remotely detect the presence of any leaks on its well pads and immediately shut down production, if necessary.

In California, Seneca adopted renewable energy technology in connection with its oil production operations. In July 2016, Seneca's California division completed installation of a 3.1 megawatt photovoltaic solar array at Seneca's North Midway Sunset field in Kern County, pictured above. This state-of-the-art complex is California's largest solar power generation system in the oil and gas industry. It's estimated that the project will generate 5.4 million kilowatt-hours of electricity each year, for use by Seneca's production equipment at its North Midway Sunset production field.

Seneca's solar facility will also generate significant environmental and financial benefits. With this project, Seneca became the first California oil producer to take advantage of the California Air Resource Board's Low Carbon Fuel Standard "Innovative Method" credit program. In addition to the carbon credits, Seneca was able to claim a \$2 million tax credit and will save more than \$800,000 per year in utility expenses. ■



## FUELING OUR COMMUNITIES

National Fuel has deep roots in the natural gas industry. From its early beginnings, National Fuel has been the hometown energy team, providing a safe, reliable and affordable source of energy, and contributing to the economic health of the communities where we live and work. As a locally-based company headquartered in Western New York, stewardship — from wellhead to burner tip — is at the forefront of the Company's operations. We continue to invest in the community, building new pipeline infrastructure, expanding our workforce, supporting local business partners and contributing to hundreds of nonprofit organizations.

As one of the largest publicly-held companies based in Western New York, National Fuel employs nearly 2,000 employees across its New York and Pennsylvania operating areas. Local union members make up more than half of the Utility and Pipeline & Storage segments' workforce. Across the organization, we pride ourselves as a local employer that offers competitive wages and benefits, and provides opportunities for career advancement and fulfillment.

National Fuel's investments and operations contribute to the economic health and vitality of our local communities. Over the last 10 years, National Fuel has spent more than \$6 billion in energy development across all its businesses, investing in real, long-lived assets that support good-paying jobs and provide significant tax base. A large portion of the Company's expenditures support the local economy. In fiscal 2016, we spent \$261 million among more than 2,000 local vendors and contractors in New York and Pennsylvania.

In addition to enhancing energy reliability and providing cost advantages for consumers, our ongoing infrastructure development and expansion has a significant impact on local economies. For example, our proposed Northern Access Project, which will utilize local union labor, is estimated to inject almost \$1 billion into the area economy, employ more than 1,600 people throughout the project, and add \$11.5 million in annual property taxes for local schools and municipalities.

Our utility customers have seen the direct benefit of recent natural gas development in the form of lower energy costs. As a result of the availability and access to low-cost natural gas, our residential utility customer bills are down significantly. Since 2008, the average bill for our residential customers has declined more than 50 percent. Commercial and industrial customers have been enjoying similar reductions, which has incentivized business expansion in our service territories to take advantage of the low-cost local energy supplies.

An important part of our stewardship includes giving back. National Fuel's employees have a longstanding history of donating their time and money to the causes that are important to them, such as the Roswell Park Cancer Institute's "Ride for Roswell," pictured to the left. Since 2005, the Company and its employees in New York, Pennsylvania, Texas and California, through the National Fuel Gas Company Foundation, donated more than \$14 million to over 800 local and national charitable organizations. National Fuel is proud to call these people employees and these regions home.

Without question, National Fuel's 2,094 employees and 2,274 retirees are woven into the fabric of our communities. They are the faces of National Fuel. Our families live here, often for generations, and we have a vested interest in ensuring a growing, thriving community. This is one of many reasons why customer safety, environmental stewardship and corporate responsibility are ingrained in National Fuel's culture, driving safe operations along with community consideration and care throughout all of our business practices. ■

## FUELING OUR COMMUNITIES IN 2016

### OUR UTILITY CUSTOMERS

**1.7 million**

People Served  
in N.Y. & Pa.

**#1**

Residential Bill Affordability  
in N.Y. & Pa.

**93% +**

Residential Customer  
Satisfaction Rate

**90%**

N.Y. Commercial Customer  
Satisfaction Rate

### OUR EMPLOYEES & RETIREES

**2,080**

Full-time Employees

**1,017**

Union Employees

**2,274**

Retired Employees

**831**

Employees Hired  
Over Past Five Years

### OUR LOCAL ECONOMIES

**\$243 million**

Wages and  
Pension Payments

**\$261 million**

Spend with Local  
N.Y. & Pa. Vendors

**\$72 million**

Property Taxes and  
Impact Fees Paid

**\$33 million**

Drilling Royalties Paid  
to Landowners

# PRINCIPAL OFFICERS

## NATIONAL FUEL GAS COMPANY

**Ronald J. Tanski**  
*President and Chief Executive Officer*

**John R. Pustulka**  
*Chief Operating Officer*

**Paula M. Ciprich**  
*Senior Vice President, General Counsel and Secretary*

**David P. Bauer**  
*Treasurer and Principal Financial Officer*

**Karen M. Camiolo**  
*Controller and Principal Accounting Officer*

**Donna L. DeCarolis**  
*Vice President, Business Development*

## UPSTREAM

### SENECA RESOURCES CORPORATION

John P. McGinnis  
*President*

Steven J. Conley  
*Senior Vice President*

David P. Bauer  
*Treasurer*

Cindy D. Wilkinson  
*Controller and Secretary*

Bradley D. Elliott  
*Vice President*

Jeffrey J. Formica  
*Vice President*

Douglas Kepler  
*Vice President*

Justin I. Loweth  
*Vice President*

Dale A. Rowekamp  
*Vice President*

Kevin M. Ryan  
*Vice President*

Steven Wagner  
*Vice President*

## MIDSTREAM

### NATIONAL FUEL GAS SUPPLY CORPORATION

David P. Bauer  
*President and Treasurer*

Ronald C. Kraemer  
*Senior Vice President*

Karen M. Camiolo  
*Controller*

Sarah J. Mugal  
*Vice President, General Counsel and Secretary*

Steven Wagner  
*Vice President*

### EMPIRE PIPELINE, INC.

Ronald C. Kraemer  
*President*

David P. Bauer  
*Treasurer*

Karen M. Camiolo  
*Controller*

Sarah J. Mugal  
*Secretary*

Steven Wagner  
*Vice President*

### NATIONAL FUEL GAS MIDSTREAM CORPORATION

Duane A. Wassum  
*President*

David P. Bauer  
*Treasurer*

Karen M. Camiolo  
*Controller*

Sarah J. Mugal  
*Secretary*

Steven Wagner  
*Vice President*

## DOWNSTREAM

### NATIONAL FUEL GAS DISTRIBUTION CORPORATION

Carl M. Carlotti  
*President*

Jay W. Lesch  
*Senior Vice President*

Paula M. Ciprich  
*Secretary*

David P. Bauer  
*Treasurer*

Karen M. Camiolo  
*Vice President and Controller*

Michael W. Reville  
*Vice President and General Counsel*

Joseph N. Del Vecchio  
*Vice President and Chief Regulatory Counsel*

Michael D. Colpoys  
*Vice President*

Jeffrey F. Hart  
*Vice President*

Steven Wagner  
*Vice President*

Ann M. Wegrzyn  
*Vice President*

### NATIONAL FUEL RESOURCES, INC.

Bruce D. Heine  
*Senior Vice President*

Steven Wagner  
*Vice President*



# DIRECTORS

## **Philip C. Ackerman**<sup>3, 5^</sup> – since 1994

Former Chairman of the Board, Chief Executive Officer, President and Principal Financial Officer of the Company. Former Director of Associated Electric and Gas Insurance Services Limited. Past Director of the Business Council of New York State and, prior Chairman of the Erie County Industrial Development Agency.

## **David C. Carroll**<sup>3, 4</sup> – since 2012

President and Chief Executive Officer of Gas Technology Institute. Trustee of the American Gas Foundation, member of the Governing Board of Stanford University's Natural Gas Initiative, and member of the Society of Gas Lighting. Former Director of Versa Power Systems, Inc. President of the International Gas Union as the United States prepares to host the 2018 World Gas Conference in Washington, D.C. Chairman of the steering committee for the 17th International Conference and Exhibition on Liquefied Natural Gas in Houston (2013).

## **Stephen E. Ewing**<sup>1, 2^, 5</sup> – since 2007

Lead Independent Director. Former Vice Chairman of DTE Energy Company. Former President and Chief Operating Officer of MCN Energy Group Inc. and former President and Chief Executive Officer of DTE Gas Company (formerly known as Michigan Consolidated Gas Company). Director of CMS Energy. Immediate past Chairman of the Auto Club of Michigan (AAA) and immediate past Chairman of the Board of the Auto Club Group (AAA). Former Chairman of the American Gas Association, the Midwest Gas Association and the Natural Gas Vehicle Coalition, and former member of the National Petroleum Council.

## **Joseph N. Jagers**<sup>1, 2</sup> – since June 2015

President, Chief Executive Officer and Chairman of Jagged Peak Energy LLC and Jagged Peak Energy Inc. Former President and Chief Executive Officer of Ute Energy, LLC. Former Director, President and Chief Operating Officer of Bill Barrett Corporation. Former Vice President, Exploration & Production, for Williams Companies. Former President and Chief Operating Officer of Barrett Resources prior to its sale to Williams Companies. Former Independent Director of Mission Resources Corporation. Past President of the Colorado Oil and Gas Association and past Executive Director of the Independent Producers Association of the Mountain State and inductee into the Rocky Mountain Oil and Gas Hall of Fame.

## **Craig G. Matthews**<sup>1^, 2, 3, 5</sup> – since 2005

Former President, Chief Executive Officer and Director of NUI Corporation. Former Vice Chairman, Chief Operating Officer and Director of KeySpan Corporation. Former Director of Houston Exploration Company (formerly a subsidiary of KeySpan Corporation), Hess Corporation (formerly Amerada Hess Corporation), Staten Island Bancorp, Inc., and Republic Financial Corporation.

## **Rebecca Ranich**<sup>4</sup> – since 2016

Former Director at Deloitte Consulting, LLP, where she led the firm's Energy and Sustainability Investment Advisory Services. Former management team member at PSG International that led negotiations to implement the Trans-Caspian Gas Pipeline. Former Vice President at Michael Baker Corporation (Baker), an international engineering, energy and environmental services firm. Former Director of Questar Corporation. Vice Chair of the Board of the Gas Technology Institute. Advisory board member of Yet Analytics, an xAPI data analytics platform. Member of the Baltimore Angels—an early stage investment group and the National Petroleum Council.

## **Jeffrey W. Shaw**<sup>1, 4^</sup> – since 2014

Former Director, Chief Executive Officer and President of Southwest Gas Corporation. Member of the American Institute of Certified Public Accountants, the Nevada Society of CPAs and the Leadership Las Vegas Alumni Association. Former Director of the American Gas Association and former Chairman and Director of the Western Energy Institute.

## **Thomas E. Skains**<sup>2</sup> – since 2016

Former Chairman of the Board, Chief Executive Officer and President of Piedmont Natural Gas Company, Inc. Former Senior Vice President—Transportation and Customer Service of Transcontinental Gas Pipe Line Corporation. Director of Duke Energy Corporation. Director of BB&T Corporation and its subsidiary Branch Banking and Trust Company. Former Chairman and Director of the American Gas Association and the Southern Gas Association. Former Director of the Gas Technology Institute, and the American Gas Foundation (a not-for-profit energy research group).

## **David F. Smith**<sup>3^, 5</sup> – since 2007

Chairman of the Board of the Company. Former Executive Chairman of the Board, Chief Executive Officer and President of the Company. Director of the Gas Technology Institute (Executive Committee and Audit Committee), former Director of the American Gas Association and former Chairman of the Board of the Business Council of New York State.

## **Ronald J. Tanski**<sup>3, 5</sup> – since 2014

President and Chief Executive Officer of the Company. Former Chief Operating Officer, Treasurer and Principal Financial Officer. Member and past Chairman (2015) of the Board of Directors of the Interstate Natural Gas Association of America (INGAA). Director of the American Gas Association. Director of Invest Buffalo Niagara.

1 Member of Audit Committee

2 Member of Compensation Committee

3 Member of Executive Committee

4 Member of Nominating/ Corporate Governance Committee

5 Member of Financing Committee

^ Denotes Committee Chairman

# FINANCIAL AND OPERATING HIGHLIGHTS

National Fuel Gas Company Year Ended September 30	2016	2015	2014	2013	2012
<b>Operating Revenues</b> (Thousands)	\$ 1,452,416	\$ 1,760,913	\$ 2,113,081	\$ 1,829,551	\$ 1,626,853
<b>Net Income (Loss) Available for Common Stock</b> (Thousands)	(290,958) <sup>(1)</sup>	(379,427) <sup>(2)</sup>	299,413 <sup>(3)</sup>	260,001 <sup>(4)</sup>	220,077 <sup>(5)</sup>
<b>Return on Average Common Equity<sup>(6)</sup></b>	(16.4%)	(17.1%)	13.0%	12.5%	11.4%
<b>Per Common Share</b>					
Basic Earnings (Loss)	\$ (3.43)	\$ (4.50)	\$ 3.57	\$ 3.11	\$ 2.65
Diluted Earnings (Loss)	\$ (3.43)	\$ (4.50)	\$ 3.52	\$ 3.08	\$ 2.63
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
Book Value at Year-End	\$ 17.94	\$ 23.94	\$ 28.64	\$ 26.23	\$ 23.52
<b>Common Shares Outstanding at Year-End</b>	<b>85,118,886</b>	84,594,383	84,157,220	83,661,969	83,330,140
<b>Weighted Average Common Shares Outstanding</b>					
Basic	84,847,993	84,387,755	83,929,989	83,518,857	83,127,844
Diluted	84,847,993	84,387,755	84,952,347	84,341,220	83,739,771
<b>Average Common Shares Traded Daily</b>	<b>518,574</b>	482,631	451,731	385,586	558,000
<b>Common Stock Price</b>					
High	\$ 59.62	\$ 72.21	\$ 78.79	\$ 69.27	\$ 64.19
Low	\$ 37.03	\$ 48.61	\$ 65.23	\$ 48.51	\$ 41.57
Close	\$ 54.07	\$ 49.98	\$ 69.99	\$ 68.76	\$ 54.04
<b>Net Cash Provided by Operating Activities</b> (Thousands)	\$ 588,979	\$ 853,580	\$ 909,390	\$ 738,572	\$ 659,010
<b>Total Assets</b> (Thousands)	\$ 5,636,387	\$ 6,564,939	\$ 6,687,717	\$ 6,125,618	\$ 5,914,939
<b>Capital Expenditures per Statements of Cash Flows</b> (Thousands)	\$ 581,576	\$ 1,018,179	\$ 914,417	\$ 703,461	\$ 1,035,007
<b>Volume Information</b>					
<b>Production</b>					
Gas – MMcf	143,547	139,563	142,307	103,693	66,131
Oil – Mbbl	2,923	3,034	3,036	2,831	2,870
Total – MMcfe	161,085	157,767	160,523	120,679	83,351
<b>Proved Reserves</b>					
Gas – MMcf	1,674,575	2,142,128	1,682,884	1,299,515	988,434
Oil – Mbbl	29,009	33,722	38,477	41,598	42,862
Total – MMcfe	1,848,629	2,344,460	1,913,746	1,549,103	1,245,606
<b>Pipeline &amp; Storage Throughput – MMcf</b>					
Gas Transportation	764,423	750,080	735,995	579,802	371,139
<b>Gathering Volume – MMcf</b>					
Gathered Volume	161,955	139,629	138,726	93,449	48,562
<b>Utility Throughput – MMcf</b>					
Gas Sales	58,705	72,434	73,892	67,903	64,099
Gas Transportation	70,847	78,749	80,949	69,149	61,027
<b>Energy Marketing Volume – MMcf</b>					
Gas	39,849	46,752	52,694	46,875	45,756
<b>Average Number of Utility Retail Customers</b>	<b>602,284</b>	591,098	584,415	587,760	599,106
<b>Average Number of Utility Transportation Customers</b>	<b>139,951</b>	148,877	153,407	147,431	133,467
<b>Number of Employees at September 30</b>	<b>2,080</b>	2,125	2,010	1,912	1,874

(1) Includes impairment of oil and gas producing properties of (\$550.0) million and includes joint development agreement professional fees of \$4.6 million.

(2) Includes impairment of oil and gas producing properties of (\$650.2) million and includes reversal of stock-based compensation expense of \$4.7 million.

(3) Includes a \$3.6 million gain on life insurance policies.

(4) Includes a \$4.9 million refund provision related to the Utility segment's New York rate proceeding.

(5) Includes elimination of other post-retirement regulatory liability of \$12.8 million.

(6) Calculated using average Total Comprehensive Shareholder Equity.

# INVESTOR INFORMATION

## COMMON STOCK TRANSFER AGENT AND REGISTRAR

Wells Fargo Shareowner Services  
P.O. Box 64854  
St. Paul, MN 55164-0854  
Tel. **800-648-8166**  
Website: <http://www.shareowneronline.com>  
Email: [stocktransfer@wellsfargo.com](mailto:stocktransfer@wellsfargo.com)

## NATIONAL FUEL DIRECT STOCK PURCHASE AND DIVIDEND REINVESTMENT PLAN

National Fuel offers a simple, cost-effective method for purchasing shares of National Fuel stock. A prospectus, which includes details of the Plan, can be obtained by calling, writing or emailing the administrator of the Plan, Wells Fargo Shareowner Services, at the address listed above.

## INVESTOR RELATIONS

Investors or financial analysts desiring information should contact:

**David P. Bauer**  
Treasurer  
Tel. **716-857-7318**

**Brian M. Welsch**  
Director of Investor Relations  
Tel. **716-857-7875**  
Email: [WelschB@natfuel.com](mailto:WelschB@natfuel.com)  
National Fuel Gas Company  
6363 Main Street  
Williamsville, NY 14221

## ADDITIONAL SHAREHOLDER REPORTS

Additional copies of this report, the 2016 Form 10-K, and the 2016 Financial and Statistical Report can be obtained without charge by writing to or calling:

**Paula M. Ciprich**  
Corporate Secretary  
Tel. **716-857-7548**

**Brian M. Welsch**  
Director of Investor Relations  
Tel. **716-857-7875**  
National Fuel Gas Company  
6363 Main Street  
Williamsville, NY 14221

## STOCK EXCHANGE LISTING

New York Stock Exchange  
(Stock Symbol: NFG)

## TRUSTEE FOR DEBENTURES

The Bank of New York Mellon  
Attention: Corporate Trust  
101 Barclay Street, 7W  
New York, NY 10286

## ANNUAL MEETING

The Annual Meeting of Stockholders will be held at 9:30 a.m. (local time) on Thursday, March 9, 2017, at the Houstonian Hotel, 111 North Post Oak Lane, Houston, TX 77024. Stockholders of record as of the close of business on January 9, 2017, will receive a formal notice of the meeting, proxy statement and proxy.

## INDEPENDENT ACCOUNTANTS

PricewaterhouseCoopers LLP  
726 Exchange Street  
Suite 1010  
Buffalo, NY 14210

## UNITS OF MEASURE

<b>Bcf</b>	Billion cubic feet (of natural gas)
<b>Bbl</b>	Barrels
<b>CO<sub>2</sub>e</b>	Carbon dioxide equivalent
<b>Mbbl</b>	Thousands of barrels (of crude oil)
<b>MMBtu</b>	Million British thermal units (heating value of one dekatherm of natural gas)
<b>MMcf</b>	Million cubic feet (of natural gas)
<b>MDth</b>	Thousands of dekatherms (of natural gas)
<b>MMcfe</b>	MMcf equivalent (of natural gas and crude oil)

This Summary Annual Report contains "forward-looking statements" as defined by the Private Securities Litigation Reform Act of 1995. Forward-looking statements should be read with the cautionary statements and important factors included in the Company's Form 10-K at Item 7, MD&A, under the heading "Safe Harbor for Forward-Looking Statements," and with the "Risk Factors" included in the Company's Form 10-K at Item 1A. Forward-looking statements are all statements other than statements of historical fact, 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 and other 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.

Forward-looking statements include estimates of oil and gas quantities. Proved oil and gas reserves are those quantities of oil and gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible under existing economic conditions, operating methods and government regulations. Other estimates of oil and gas quantities, including estimates of probable reserves, possible reserves, and resource potential, are by their nature more speculative than estimates of proved reserves. Accordingly, estimates other than proved reserves are subject to substantially greater risk of being actually realized.

This Summary Annual Report and the statements contained herein are submitted for the general information of stockholders and employees of the Company and are not intended to induce any sale or purchase of securities or to be used in connection therewith. For up-to-date investor information, please visit the Investor Relations section of National Fuel Gas Company's Corporate website at <http://www.nationalfuelgas.com>. If you would like to receive news releases automatically by email, simply visit the News section and subscribe.



**NATIONAL FUEL GAS COMPANY**

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716-857-7000 [www.nationalfuelgas.com](http://www.nationalfuelgas.com)

NYSE: NFG