



*National Fuel*<sup>®</sup>

# FM100 Modernization Project

**National Fuel Gas Supply Corporation**

**Aug. 16, 2017**

# Who is National Fuel Gas Company?

- A diversified energy company with more than 100 years experience in New York and Pennsylvania.
- Business segments include:
  - **Exploration and production**- develops and produces natural gas
  - **Gathering**- owns and operates natural gas processing and pipeline facilities
  - **Pipeline and storage**- owns and operates 2,800+ miles of interstate natural gas pipelines
  - **Utility**- transports natural gas to more than 740,000 customers
  - **Energy Marketing**- non-utility energy supplier



National Fuel Gas Midstream Corporation



**Empire Pipeline**  
A National Fuel Gas Company



NATIONAL FUEL RESOURCES, INC.  
DEREGULATED NATURAL GAS EXPERTISE  
[WWW.NFRINC.COM](http://WWW.NFRINC.COM)



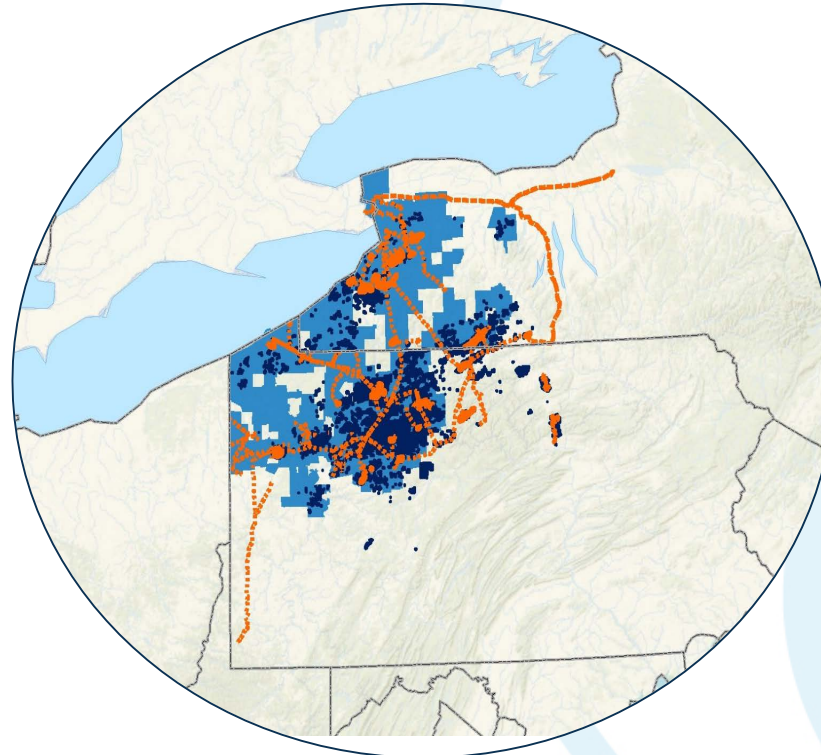
# The Home Team

**NFG is a large public energy company with corporate offices in Williamsville, NY and Erie, PA**

**2,080**  
Full-Time  
Employees

**1,017**  
Union  
Employees

**2,274**  
Retirees



**\$5 Billion**  
Investments in NY  
& PA since 2010

**740,000**  
Utility accounts served  
1.2 million people NY  
.5 million people PA

**Our employees and retirees work, live and raise families in our operational footprint**

# Pennsylvania Territory

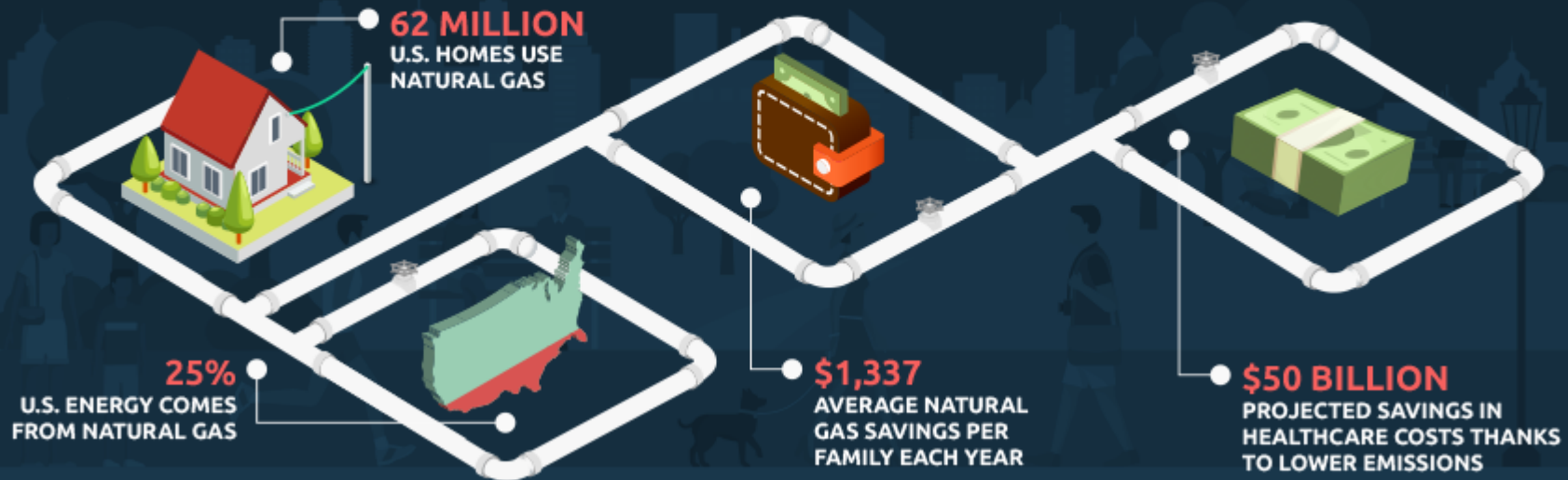
- A total of 724 employees.
- All segments of the company's unique, integrated business model present in Pennsylvania.
- Exploration and Production activity primarily in McKean, Elk, Cameron, Lycoming, and Tioga counties.
- Dates back to the 1880s and the origins of the industry in Pennsylvania.
- Originally part of John D. Rockefeller's Standard Oil Natural Gas Trust.



# Natural Gas in Demand

## GET TO KNOW NATURAL GAS

A quick snapshot of natural gas by the numbers.



# Why are we here?

- Extensive community involvement at an early point in the FM100 Modernization Project.
- Open dialogue with the public:
  - Answer questions.
  - Listen to comments.
  - Gather input.
- Question and answer period to follow presentation.



# What is a Modernization Project?

- National Fuel pipeline modernization projects ensure:
  - Safe, secure pipelines.
  - Reinforces our system by updating aging infrastructure.
  - Enhances system reliability.
  - Upgraded facilities.
  - New technology.
  - Fewer emissions.



# Regulatory Agencies

- **Federal Agencies**
  - Federal Energy Regulatory Commission (FERC)
  - U.S. Army Corps of Engineers (USACE)
  - U.S. Fish and Wildlife Service (USFWS), Pennsylvania Field Offices
  - U.S. Department of Transportation (DOT) (PHMSA)
  - Various Native American Tribal Group Contacts
- **Commonwealth of Pennsylvania Agencies**
  - Pennsylvania Department of Conservation and Natural Resources
  - Pennsylvania Fish and Boat Commission
  - Pennsylvania Game Commission
  - Pennsylvania Department of Environmental Protection (PADEP)
  - Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation, State Historic Preservation Office
  - PADEP and Local County Conservation Districts

- **Local Municipal Agencies**
  - Town Building Permits
  - Road Use/Opening Permits



# FERC

- Federal Energy Regulatory Commission:
  - Independent agency that regulates interstate transmission of natural gas.
  - Authority for siting, construction and operation of facilities for transporting natural gas in interstate commerce.
  - Project is proposed to be a 7b/7c filing.

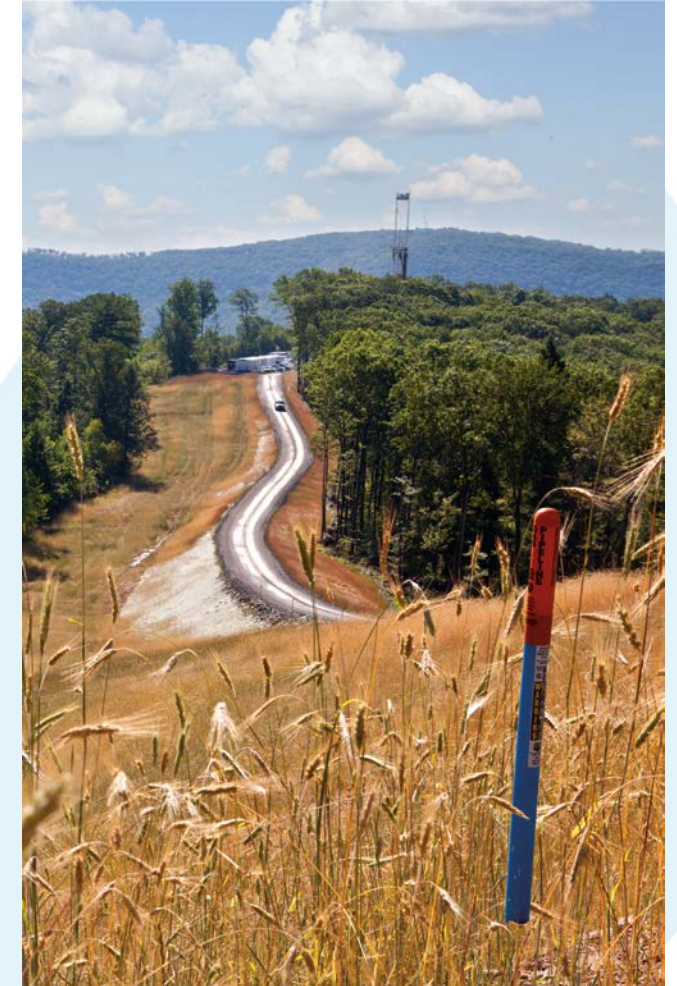


# Project Overview

National Fuel Gas Supply Corporation (National Fuel) is proposing a project to modernize a segment of its system in McKean, Potter, Elk, Clearfield and Cameron counties in Pennsylvania.

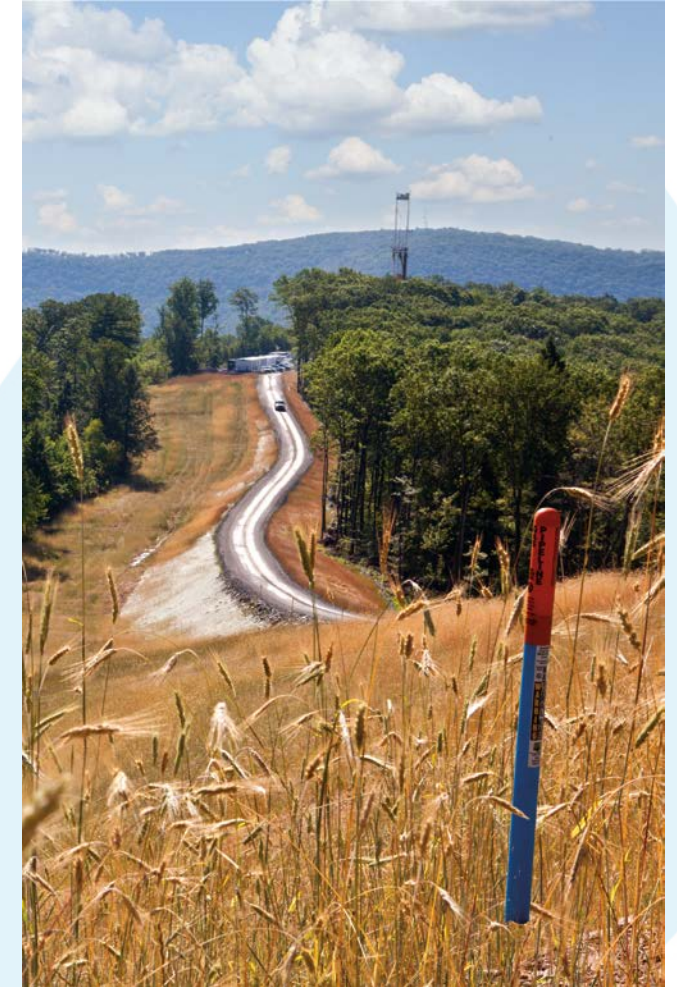
Specific project components include:

- Installing approximately 28.9-miles of 12 or 16-inch steel high-pressure natural gas pipeline in Sergeant, Norwich, and Liberty Townships, McKean County, Pennsylvania and Roulette, Pleasant Valley, Clara, Hebron Townships, Potter County, Pennsylvania.
- Installing a new natural gas compression facility in Sergeant Township, McKean County, Pennsylvania. (HP size to be finalized.)
- Installing a new metering and regulation facility in Hebron Township, Potter County, Pennsylvania.



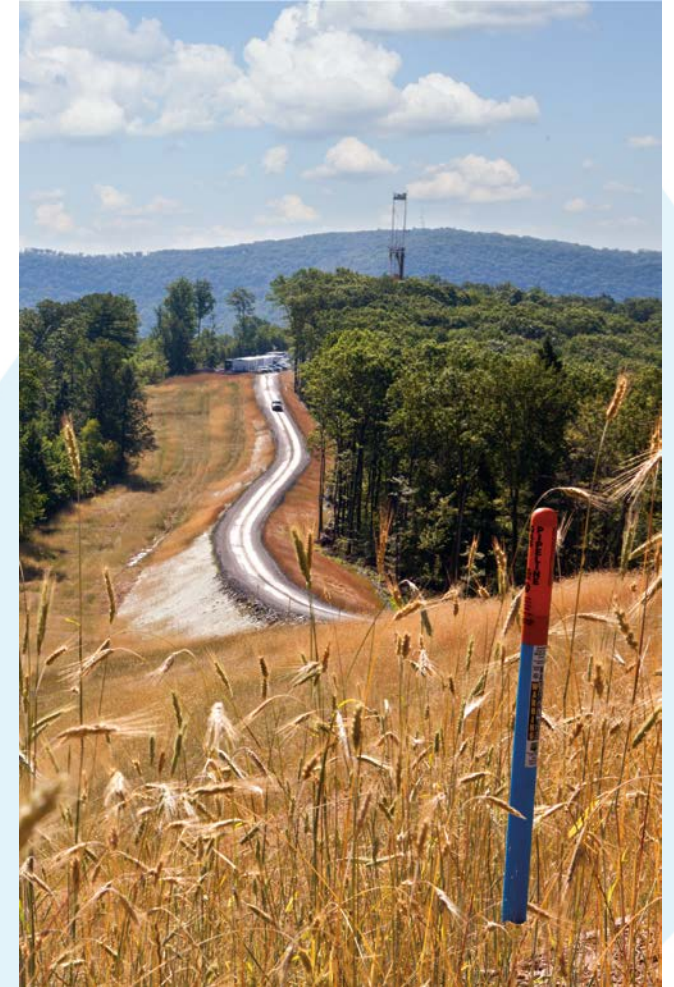
## Project Overview (cont.)

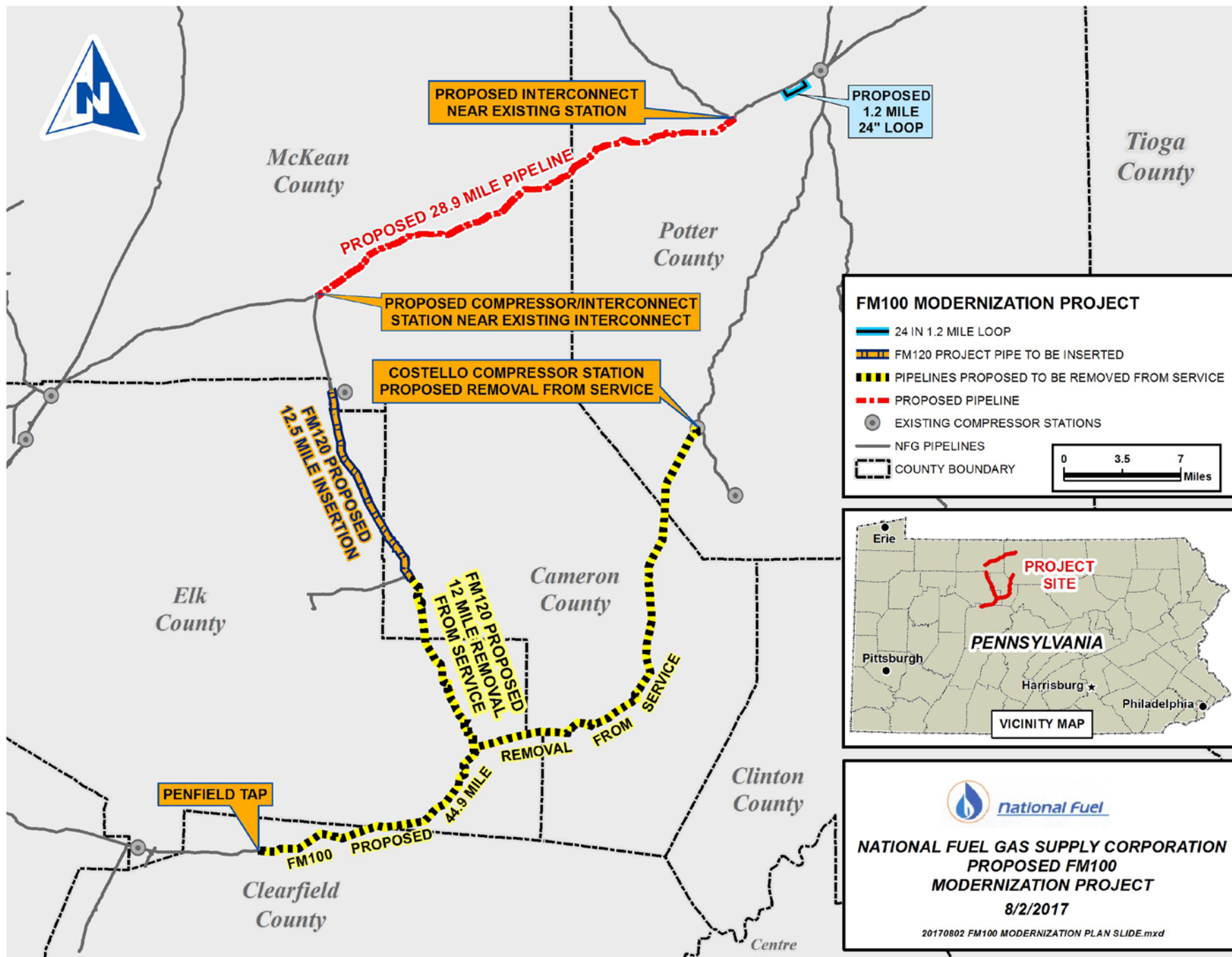
- Installing approximately 1.2 miles of 24-inch steel high-pressure natural gas pipeline in Allegany and/or Hebron Townships, Potter County, Pennsylvania.
- Inserting approximately 12.5-miles of 6-inch FlexSteel high-pressure natural gas pipeline into National Fuel's existing 12-inch steel natural gas pipeline (Line FM-120) in Sergeant Township, McKean County, Pennsylvania, Jones Township and the City of St. Mary's, Elk County, Pennsylvania, and Shippen Township, Cameron County, Pennsylvania.
- Removing from service approximately 12-miles of 12-inch steel high-pressure natural gas pipeline (Line FM-120) in Shippen Township, Cameron County, Pennsylvania and Benezette Township, Elk County, Pennsylvania.



## Project Overview (cont.)

- Removing from service approximately 44.9-miles of 12-inch steel high-pressure natural gas pipeline (Line FM-100) in Huston and Lawrence Townships, Clearfield County, Pennsylvania, Benezzette Township, Elk County, Pennsylvania, the Borough of Driftwood, and Gibson and Lumber Townships, Cameron County, and Wharton and Portage Townships, Potter County, Pennsylvania.
- Decommissioning a natural gas compression facility (Costello Compression Station) in Portage Township, Potter County, Pennsylvania.



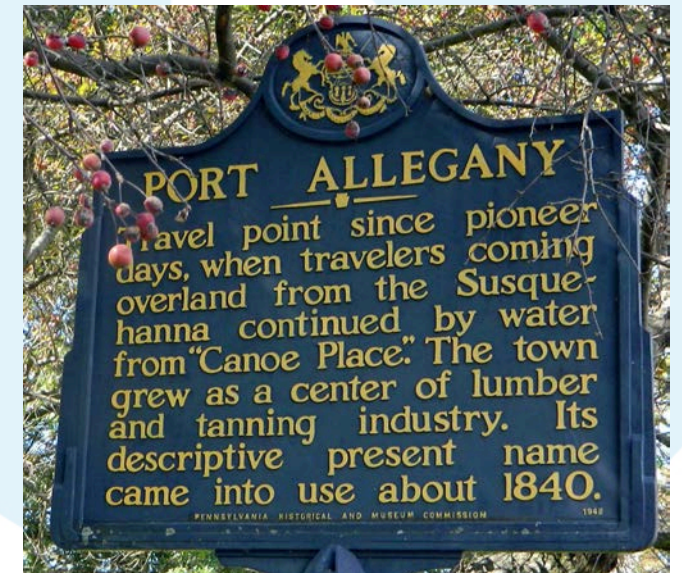


# Proposed Timeline

August 2017	Begin landowner notification and survey permission
September 2017	Survey, environmental, and engineering studies of preferred route
April 2018	Submit 7(b) and (c) application to FERC
January through May, 2019	Right of way acquisition; continue environmental studies as necessary
May 2019	Anticipate FERC approval
Mid 2019 and/or 2020	Begin timber clearing and site activities
Mid 2019 and/or 2020	Construction begins
Immediately Following Construction	Restoration begins
Anticipated in 2020	Target in-service date
Anticipated in 2020	Remaining restoration

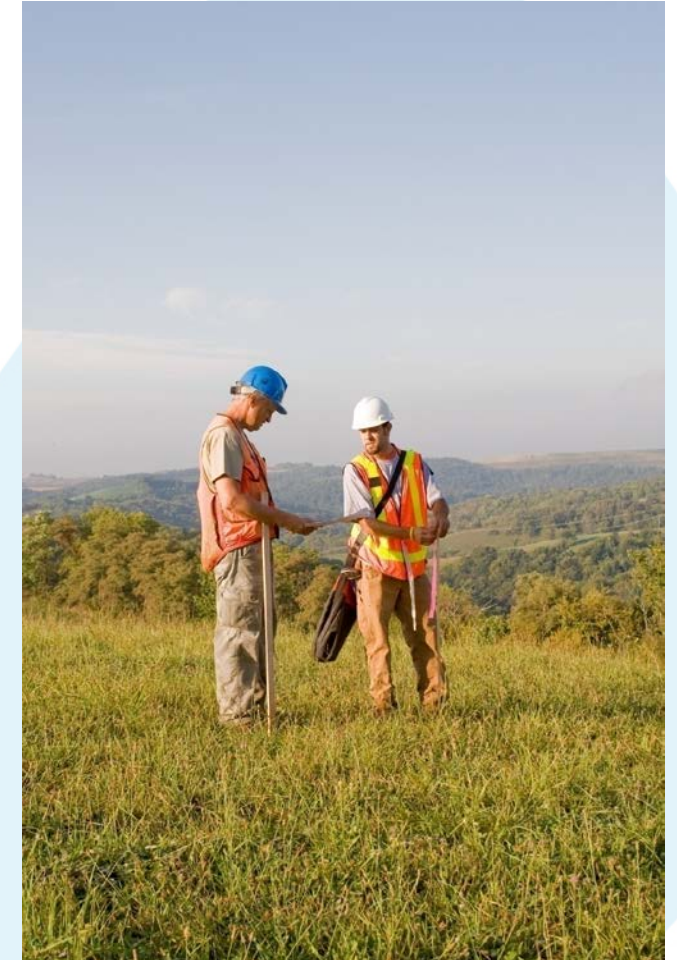
# Economic Impact of the Project

- Investing more than \$100 million in Pennsylvania.
- Creating 250-300 jobs during construction.
- Supporting local businesses during construction and operation.
- Ongoing work with area companies.



# Factors in Selection of Route and Facilities Location

- Maximize use of existing utility corridors.
- Minimize impact to landowners.
- Engineering and technical considerations.
- Constructability considerations.
- Minimize disturbance to land.
- Natural resource preservation.
- Cultural and archeological resource preservation.
- New stations near existing facilities.



# Our Commitments



## Commitments to Responsible Pipeline Construction

The Interstate Natural Gas Association of America is comprised of 26 members, representing the vast majority of the interstate natural gas transmission pipeline companies in the U.S. and Canada. INGAA members operate almost 200,000 miles of pipeline.

### ENSURING SAFE & QUALITY CONSTRUCTION

*INGAA members are committed to safe and responsible pipeline construction practices.*

- We ensure all construction materials meet or exceed design specifications and regulatory requirements.
- We inspect and test all new pipelines before they are put in service. This includes weld and coating inspection and pressure testing.
- We employ qualified pipeline construction inspectors. In addition, we are working to have our pipeline construction inspectors complete a new advanced certification program (API 1169) by the end of 2018.

### CARING FOR COMMUNITIES & LANDOWNERS

*We communicate with interested parties before, during and after construction.*

- We work collaboratively with landowners. To that end, we reaffirm INGAA's "Commitment to Landowners" on all projects. We require our representatives to interact respectfully and productively with landowners and other stakeholders and to act in good faith.
- We work with the community and other stakeholders to communicate the need for the project and discuss options to preserve historic, cultural and community resources and give the public opportunities to express views.
- We provide timely information and advance notification to landowners and our neighbors before undertaking planned construction activities.
- We proactively engage first responders and local safe digging programs (One Call/811). We provide information on pipeline locations and response procedures.

### PRESERVING ENVIRONMENTAL RESOURCES

*We use construction processes and technologies designed to minimize impacts to natural resources.*

- We are committed to constructing and siting our pipeline facilities in an environmentally responsible manner. The siting and construction process is designed to balance the need to provide safe and reliable energy with the need to protect air, water, land and wildlife.
- We avoid, minimize or mitigate impacts to environmental and cultural resources by carefully evaluating and implementing appropriate construction methods.
- We restore and revegetate pipeline rights of way and construction work areas. We work with landowners and resource agencies to preserve water and land resources and minimize long-term effects resulting from construction.

### RESPECTING REGULATIONS

*We respect the regulatory processes that govern our construction projects.*

- We design and construct our pipelines in compliance with a comprehensive framework of regulations.
- We comply with the applicable processes that govern easement acquisition, certification, permitting, construction, operations and maintenance of our facilities.
- We work openly with regulators to ensure that our pipelines are designed and built safely, with quality materials, in ways that minimize the impact to the environment and the community.

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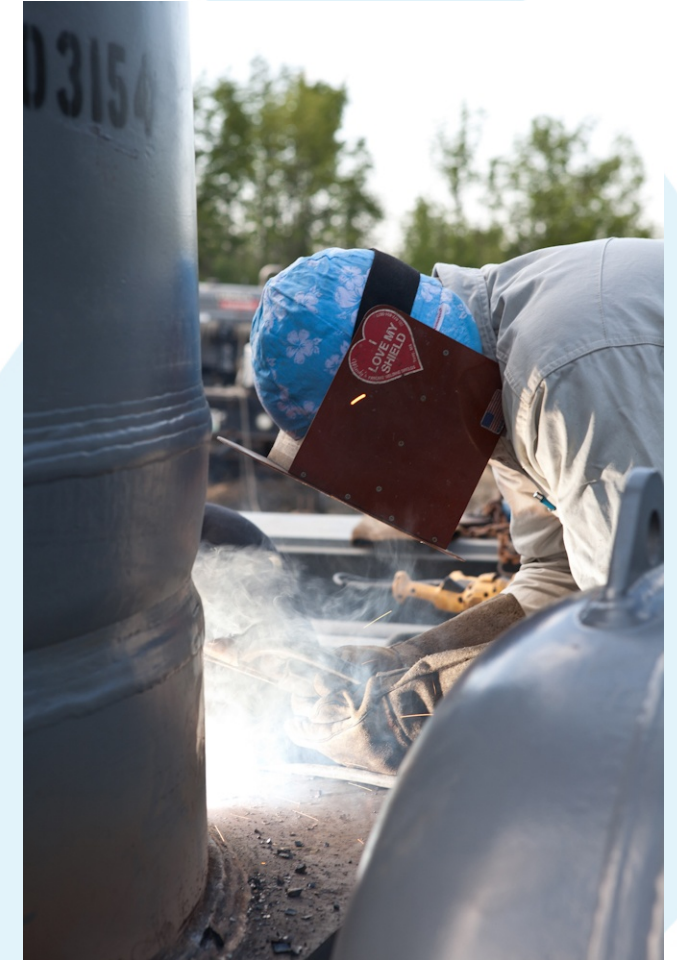
RESPECTING  
REGULATIONS



National Fuel®

# Safety

- Safety is our top priority/outstanding safety record.
- Pipeline facilities are constructed and maintained to meet or exceed federal safety code:
  - High strength carbon steel with modern fusion bonded epoxy coating
  - Coating protected with Rockshield and/or select screened backfill
  - Minimum 3 foot of cover
  - 100% of welds are X-rayed
  - Hydrostatic test
  - Remote control valves
- Local operations across project route
- System monitored 24/7 by NFG Gas Control
- Regulated/inspected by Federal Energy Regulatory Commission and U.S. Department of Transportation.

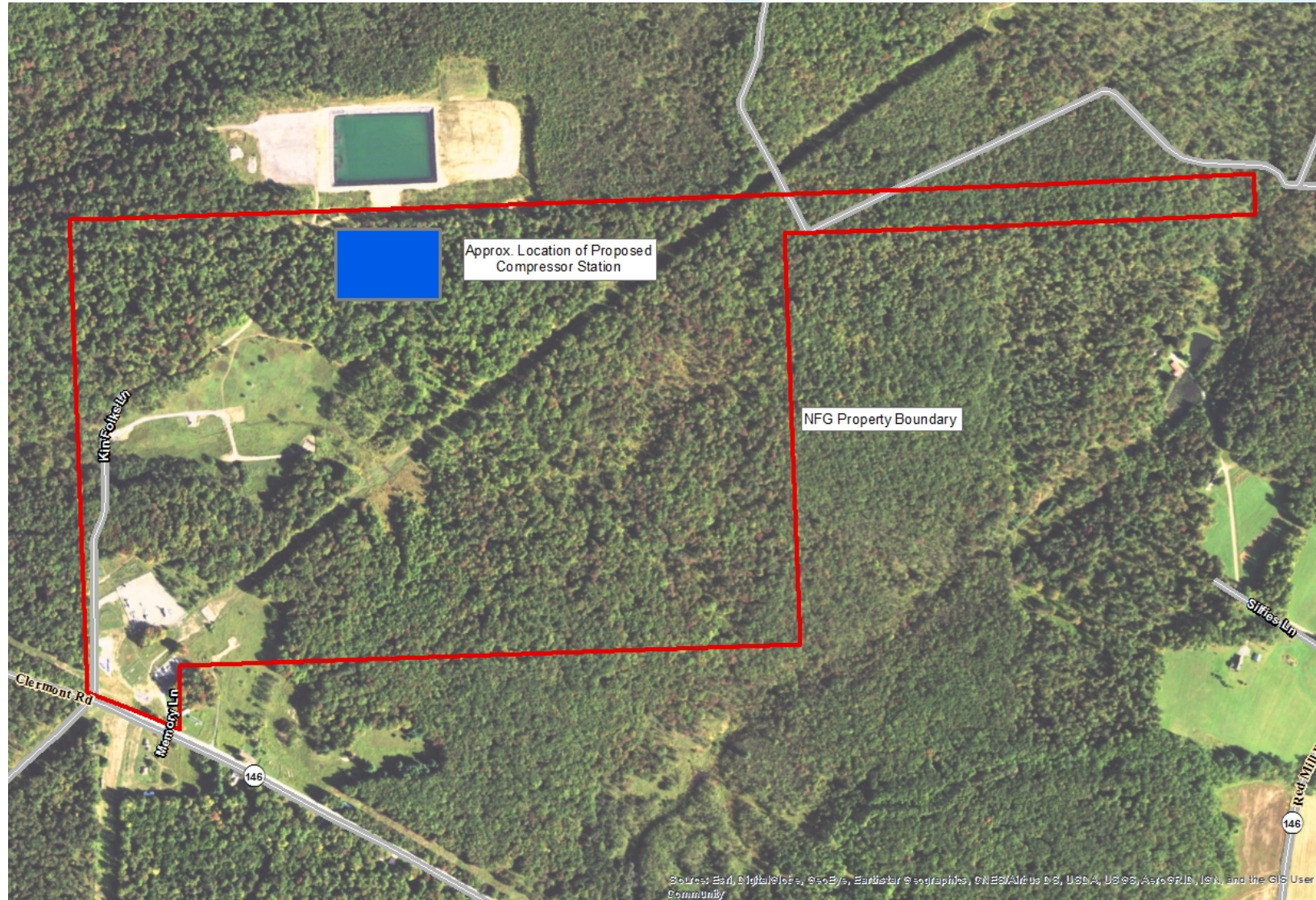


## Safety (cont.)

- FlexSteel
  - Steel reinforced flexible plastic pipe, tested to withstand twice the rated pressure.
  - Stainless steel swaged fittings.
  - 30 years of use in offshore / marine environments.
  - Zero in-service failures due to FlexSteel pipe design.
  - Special DOT permit allows use of FlexSteel which provides an equivalent or greater level of safety than traditional steel lines.



# Compressor Station Location - Sergeant Twp., McKean Co.



# Compression for this project

Preliminary conceptual design details:

- To be located on land already owned by NFG.
- Preliminary design – approx. 2,000HP (2 units at ~1000HP each).
- Electrical control, auxiliary equipment & office buildings.
- Ancillary equipment: metering, filter/separator, coolers, storage tanks.
- State-of-the-art noise control.
- Meet or exceed stringent DEP and EPA air permit requirements.
- Vibration for all mechanical equipment is controlled to non-detectable levels.
- Minimized station lighting.



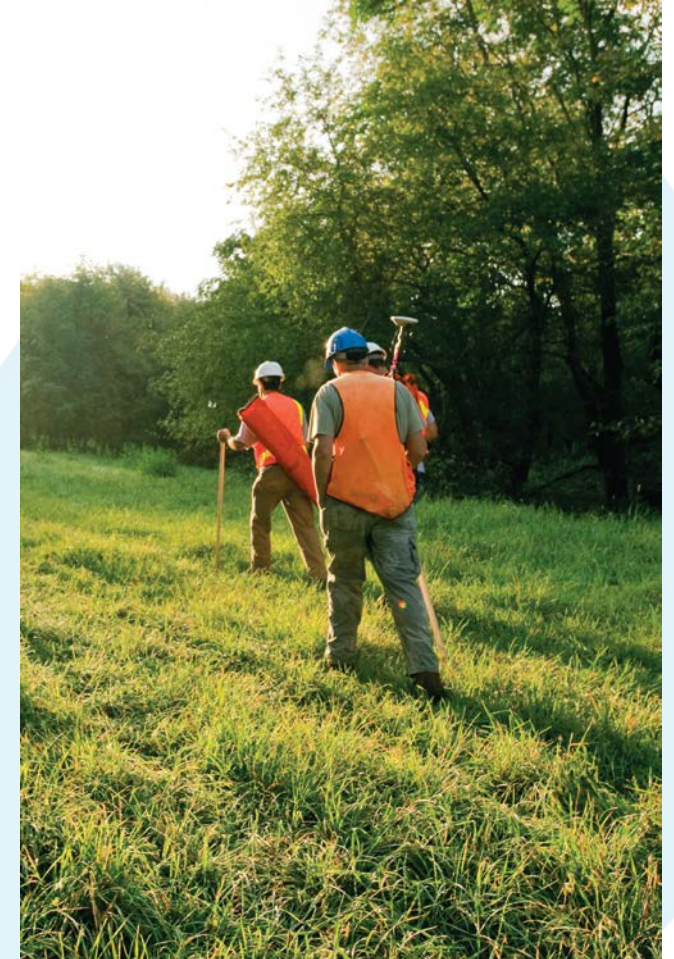
## Compression for this project (cont.)

- Meet or exceed all federal safety codes for design and operation.
- State-of-the-art control system:
  - Fire detection
  - Gas detection
  - Onsite automated fail-safe safety control systems
  - No off-site intervention required for shutdown
  - Automatic emergency shutdown
- Monitored 24/7 by local National Fuel Gas Dispatch Center.
- Highly trained and DOT operator qualified personnel operate stations.
- Onsite M-F maintenance/inspection.
- Local on-duty and on-call station technicians.



# Surveying in Your Area

- Surveying property – completed by walking land and ATVs, colored flagging and stakes installed.
- Minimal disturbance by shovel testing, if necessary.
- Test holes repaired upon completion of testing.
- Surveying does not harm the land.
- Company representatives carry photo ID at all times.
- Will not ask to enter your home for any reason.
- Allows for communication with landowners.



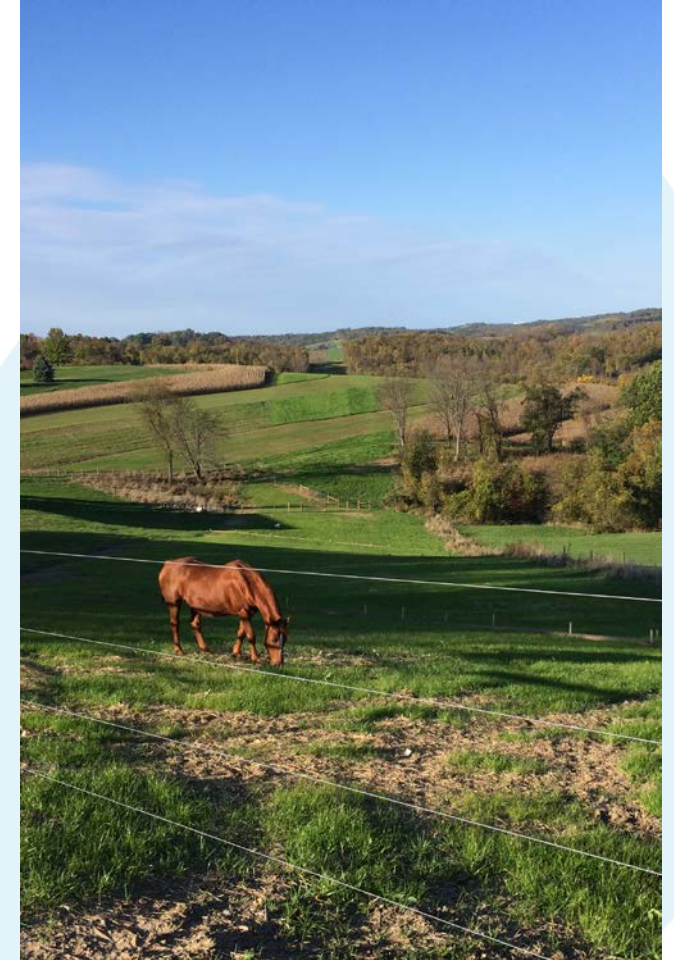
# Agricultural Area Considerations

- Topsoil Segregation.
- Drain tile remediation.
- Decompaction of subsoil.
- Excess rock removal from at least top 12".
- Minimum 4' depth of cover.
- Successful when crop growth and vigor is similar to adjacent undisturbed portions.
- Crop loss compensation until successful.



# Landowner Compensation

- Landowners will be appropriately compensated for economic loss/use (crop and timber damage) caused by construction.
- Proposed pipeline and facility easements will be acquired through negotiation based on comparable property sales and/or current market value.
- Land will be restored to original or better condition.



# Proven Results



***Before***



***During***



***After***

# INGAA Landowner Commitments

- The Interstate Natural Gas Association of America (INGAA) is committed to leading an industry that builds and maintains strong positive relationships with Landowners. Each INGAA member company embraces the following commitments:
  1. Respect and Trust
  2. Accurate and Timely Information
  3. Negotiate in Good Faith
  4. Respect the Regulatory Compact
  5. Responding to Issues
  6. Outreach
  7. Industry Ambassadors
  8. Ongoing Commitment to Training
- <http://www.ingaa.org/File.aspx?id=23177>



## Contact Information

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