Natural gas represents 29% of total energy consumption in the U.S. There are 73 million natural gas customers in the country. Gas is the leading home fuel in the country, and also is a leading fuel of choice for industry, power plants, and schools, hospitals and numerous commercial enterprises.
What is Natural Gas?

- Combustible hydrocarbon gasses
- Primarily methane (CH₄)
- Found in underground reservoirs
- Comes from bacterial decomposition of plant and animal matter
Where does our gas come from?
The natural gas resource base in the U.S. (and North America) is abundant. The U.S. gets over 90% of its supplies from domestic fields, about 5% from Canada, and a little less than 1% from liquefied natural gas (LNG) shipments from overseas.
There are over 2.5 million miles of underground natural gas lines in the U.S. (including gathering systems), transporting gas from production fields to local markets throughout the country.

Mileage data as of 2017, source: PHMSA
The Northeast U.S. has over a dozen different interstate pipelines, transporting gas into the region from the U.S. Gulf and Texas, mid continent, Appalachia, and western and eastern Canada.
The Northeast also uses storage to ensure enough gas is located close to the region to meet demand on peak winter days. Storage can be based in underground caverns (blue triangles here), or LNG tanks (orange circles).

New England
- No underground storage
- 2 operating LNG import facilities
- 28 LDC-owned LNG storage facilities

New York
- 26 underground storage facilities
- 3 peak-shaving LNG facilities

New Jersey
- No underground storage
- LDC- and pipeline-owned LNG storage facilities

Pennsylvania
- 49 underground storage facilities
- 4 LNG storage facilities

Blue = underground storage, orange = LNG.
Green = LNG import facilities
Source: U.S. EIA
Pipeline companies use “compressor stations” to “push” the gas through the system. These stations are generally located every 70 to 100 miles or so along a pipeline’s route, and help assure continuous forward movement of supplies through the system.

Photos courtesy of Tennessee Gas Pipeline.
How does natural gas move from the production fields to your home or business? It follows the path indicated here, through the interstate pipeline system, and then into the local natural gas utility’s distribution network.
Natural gas is odorless in its natural state, but at the city gate, the local gas utilities add a harmless chemical called mercaptan into the gas system, with an odor similar to rotten eggs, so that, if there is a release of gas, the public can be aware of it.
There are 5 million natural gas customers in the State of New York. They are served by ten local natural gas utilities. The utility service areas are illustrated here (note: white indicates no service).
There are 3 million natural gas customers in the State of New Jersey. They are served by four local natural gas utilities. The utility service areas are illustrated here (note: white indicates no service).
There are 2.7 million natural gas customers in the six New England states. They are served by numerous local natural gas utilities. The utility service areas are illustrated here.
There are 3 million natural gas customers in the State of Pennsylvania. They are served by eleven local natural gas utilities. The utility service areas are illustrated here (note: white indicates no service).
The natural gas industry is regulated by numerous government agencies at both the federal and state levels.

U.S. Department of Transportation/Office of Pipeline Safety / Pipeline and Hazardous Materials Safety Administration (PHMSA)

U.S. Federal Energy Regulatory Commission

U.S. EPA

U.S. Coast Guard

National Transportation Safety Board

State Public Utilities Commission

State Department of Environmental Protection

State Fire Marshal’s Office
The natural gas system is safe and well-maintained, and closely regulated by federal and state agencies.

Natural gas utilities in the region have procedures in place, overseen by federal and state agencies, to reduce the occurrence of system incidents. Incidents are rare.

The rate of incidents in the U.S. and the region over recent decades has been declining, at the same time that the number of customers and pipeline mileage on the system has increased.

The industry takes all incidents seriously and is constantly working to ensure the integrity of its system, including regular maintenance and replacement of line segments on an approved schedule.

The industry also undertakes regular training of its employees and contractors.

Companies are active in promoting public awareness communications with customers, stakeholders and the general public; the leading cause of incidents is “third party damage.” Be aware and call before you dig!
Natural gas utilities regularly monitor their systems for safety, reliability and integrity.

Companies monitor for leaks, corrosion, outside damage, etc.

Substantial resources are expended annually on line improvements and replacements.

Companies monitor gate and regulator stations and conduct periodic gas odor level tests.

PHMSA notes:

“Gas Distribution Operators are inspected to ensure they are in compliance with all applicable section of 49 CFR 192 Transportation of Natural / Other Gas by Pipeline. This includes a review to ensure that all operation and maintenance procedures, abnormal and emergency operating procedures, damage prevention and public education procedures, and pipeline installation, connection, repair and operations are in compliance.”
Remember to Call before You Dig and to Dig Safely! Resources exist in every state to provide guidance on system safety. Be aware, and be safe!

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Slides prepared by the Northeast Gas Association