



# Relationship Between Natural Gas Supply, Transportation and Distribution Companies

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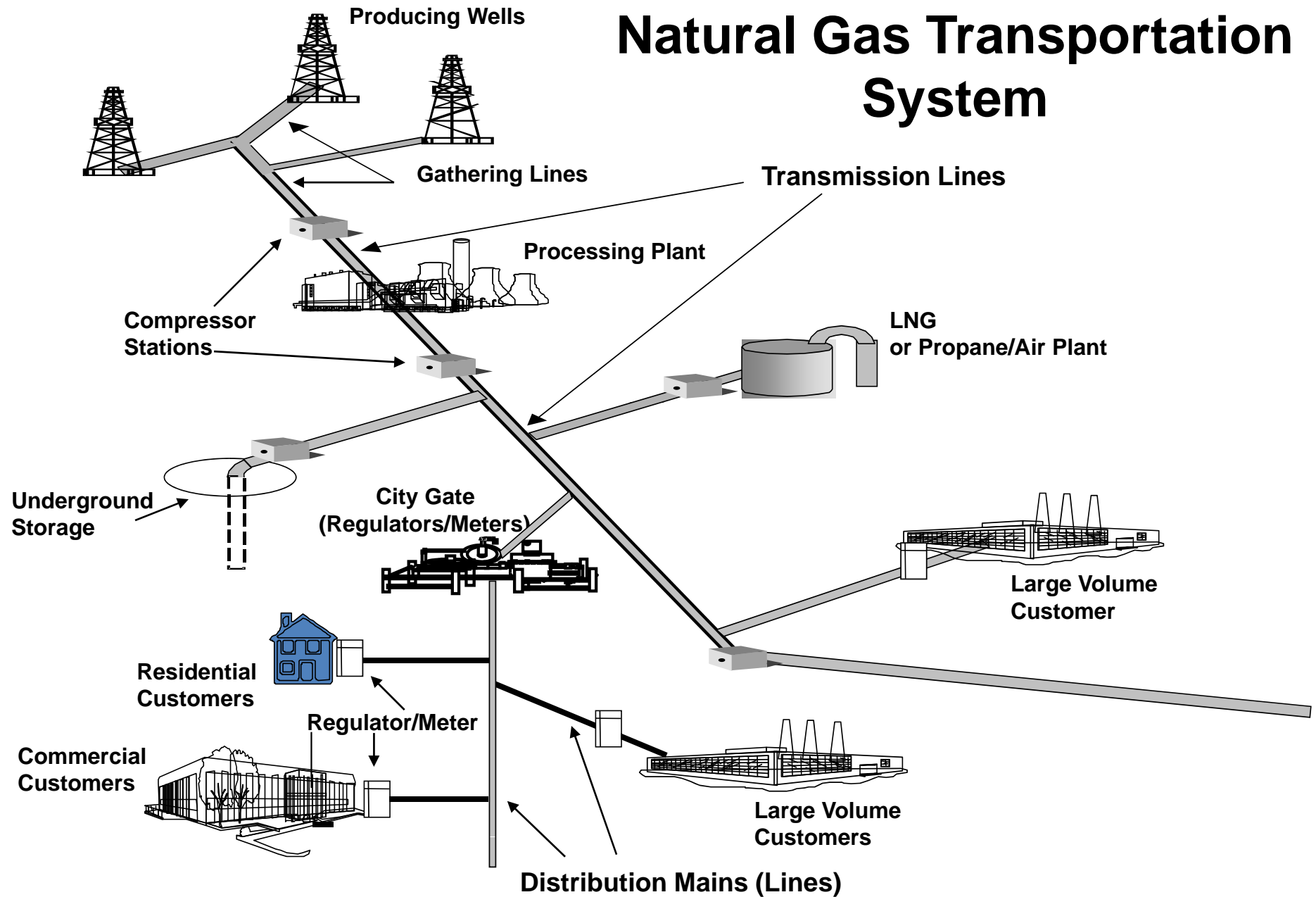
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# Natural Gas Transportation System





# Natural Gas Supply

- Deregulated in 1985
- Price information – NYMEX benchmark
- Supply is developed by major companies like Exxon Mobil and by much smaller companies
- According to the US Natural Gas Supply Association, there are almost 8,000 companies producing natural gas in the US
- Trading of natural gas is done at liquid points or hubs such as the Henry Hub in Louisiana
- The difference between the price of gas at a liquid or trading point and the market price of gas at a LDC citygate is called the “basis differential”



# Natural Gas Interstate Transportation

- Regulated by FERC under the Natural Gas Act , which was enacted in 1938 to regulate the interstate pipeline transportation and sales of natural gas
  - Section 3 – provides for the exportation or importation of natural gas
  - Section 4 – provides for pipeline companies to file for rate increases
  - Section 5 – provides for complaints to be filed on pipeline companies' rates or practices



# FERC Rate Cases

- Section 4
  - Pipeline company files a rate increase request
  - After a 5 month suspension period the rate increase goes into effect, subject to refund
  - No statutory period in which FERC must act – can take years to resolve



## FERC Rate Cases (Cont'd)

- Section 5 –
  - Complaint can be filed by a party if it feels a pipeline company is over-earning
  - Any decrease found to be warranted is only prospective from the time of the FERC determination
  - No statutory period – creates an incentive for the pipeline company to extend the process



## FERC Rate Cases (Cont'd)

- Issues in FERC rate cases are similar to the issues the states address in LDC rate cases
  - Cost allocation and rate design – straight fixed variable (SFV)
  - Return on equity
  - Cost of service – depreciation, operations and maintenance expense, allocation to/from affiliates
- In the past, pipeline rate cases had been the major portion of the Federal intervention work
- Multi-year stay-outs have dramatically decreased rate cases being filed



## Interstate Pipeline Expansion Proceedings

- Application filed
- Need and rate review – paper proceedings
- Environmental review – including routing issues; public opposition can add years of delay
- Issuance of Certificate
- Pipeline must show need for the project, projects must support themselves without subsidization from existing ratepayers



# US Department of Transportation

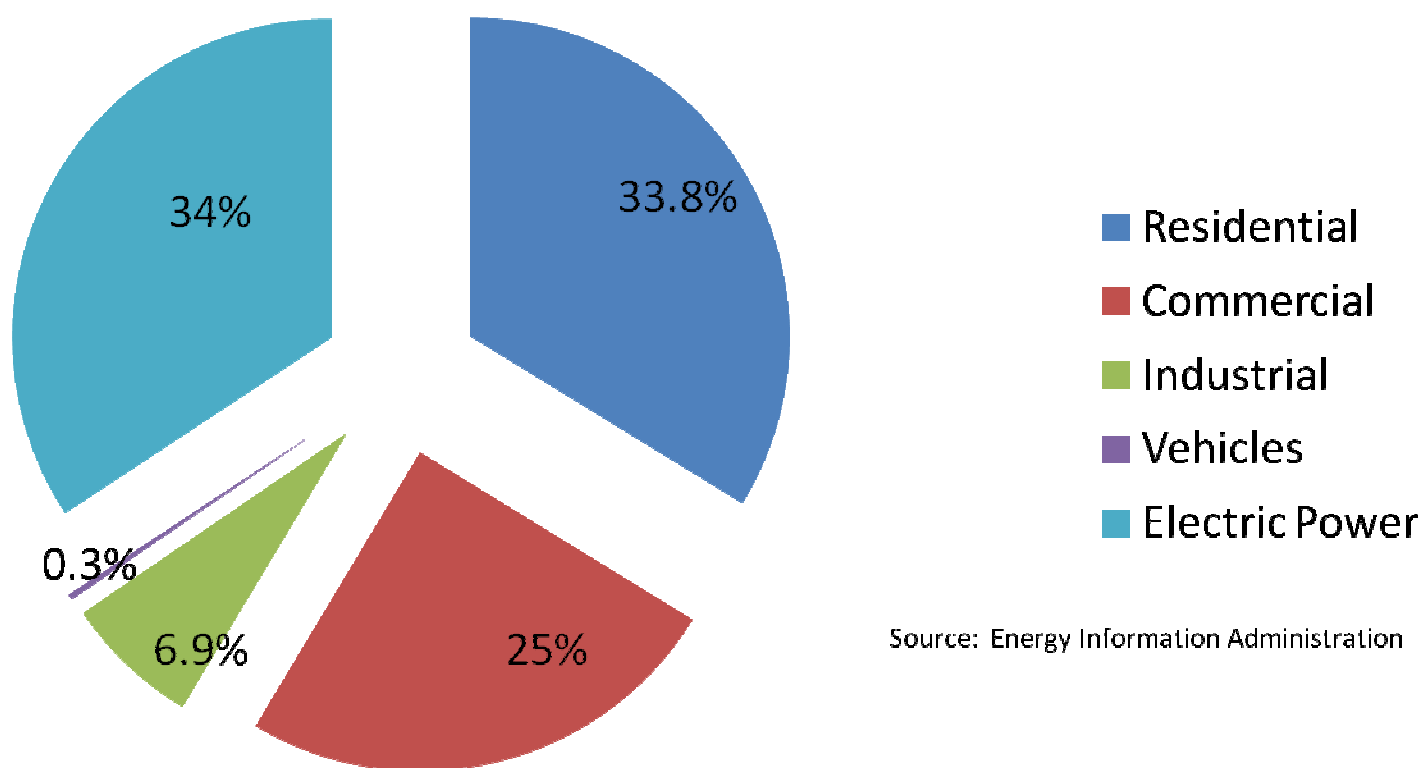
- The US Department of Transportation has exclusive responsibility for safety regulations of interstate pipeline facilities through its Pipeline and Hazardous Materials Safety Administration
- It delegates safety regulation of intrastate pipeline facilities to states that meet its criteria
- Funding up to 80% of state program costs based on how much funding the state provides and the state's performance



# Natural Gas Distribution

- Regulated by the states, including the New York State PSC

# New York State Natural Gas Consumption by Sector 2008 Consumption



Source: Energy Information Administration



# New York State Gas Industry Major Components of Natural Gas Tariffs

- Delivery Charge (set by the Commission)
  - Reflects the costs of moving the gas from the citygate (interconnection with interstate pipeline company) to customer's meter
- Gas Supply Charge
  - Adjusted monthly and reconciled annually
  - Reflects the costs of gas supplies (commodity and capacity) purchased from suppliers or from local producers
  - Commodity price is set by the marketplace; utilities use hedging instruments to moderate price volatility
  - Includes the price for interstate pipeline capacity which is established under tariffs approved by FERC



## New York State Gas Industry Major Components of Natural Gas Tariffs (Cont'd)

- Other Rate Components
  - Weather Normalization Clause – used to normalize revenue stream to utility during colder or warmer weather
  - Standby Service – back-up commodity supply service provided to transportation customers as needed
  - Revenue Decoupling Mechanism – used to guarantee revenue stream so that utility will be indifferent to customer conservation

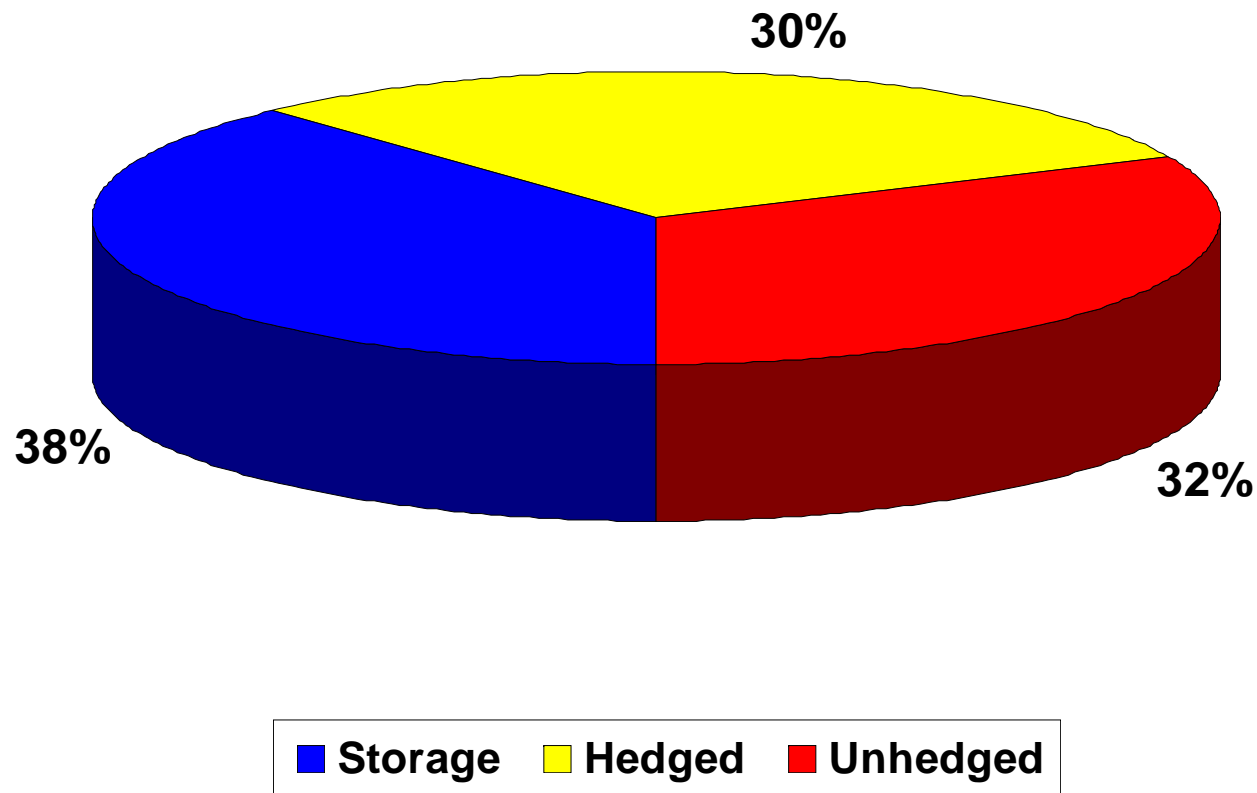


## Policy Statement Concerning Gas Purchasing Practices

- Purpose: to provide diversity in acquisitions and to defuse price spikes and valleys for gas supplies
- Compliance:
  - LDCs need to develop an acquisition strategy to include a mix of purchase options with a view toward fostering supply reliability and price stability
  - Reducing Gas Price Volatility
    - Setting prices for future deliveries to protect against significant price fluctuations (hedging)
    - Storage inventories to provide a natural hedge
    - A portion of flowing gas is hedged either through a physical hedge or a financial hedge



# Typical Winter Supply Portfolio





## Open Access/Retail Markets

- All gas customers in New York State have the ability to purchase their gas supply from the utility or from the supplier of their choice, known as ESCOs
- Instituted in late 1996
- The latest data (January 2010) indicates that about 17% of natural gas customers have migrated to ESCOs, or about 44% of total volumes



# Gas Transportation Operating Procedures

- New York LDCs are required to file Gas Transportation Operation Procedures which govern interactions between them and energy service companies (ESCOs) providing gas supply to LDC customers
  - Changes must be filed 30 days before they become effective
  - Parties can comment during that period



## Balancing Market

- Balancing is a service which follows actual natural gas load and meets its fluctuations to ensure pipeline pressures and reliability are maintained
- Balancing for smaller customers is done by the utility
- Larger customers and electric generators can purchase balancing services from the LDC or from another entity such as a ESCO or pipeline
- LDCs use swing services from pipelines with storage facilities to balance, or they use LNG/LPG (liquefied petroleum gas or propane) facilities



# New York State Gas Industry

## Major Customer Groups

- Sales Customers
  - Purchase both delivery and gas supply service from the local distribution company (LDC)
  - Generally residential and small commercial customers
- Transportation Customers
  - Purchase delivery service from the LDC
  - Purchase gas supply from a third party and have it delivered to the citygate for re-delivery by the LDC to the customer
  - Large commercial and industrial customers have taken transportation service since 1985
  - Smaller commercial and residential loads can be aggregated by gas marketers into groups large enough to purchase transportation service, since 1996



# New York State Gas Industry

## Types of Gas Service

- Gas Supply and Delivery Service Provided by Utilities:
  - Firm – customer's full requirements provided at all times; residential, commercial and industrial
  - Interruptible – Discounted rates where service can be halted based on the need of the utility to use the supply for firm customers' needs
  - Temperature Controlled – Gas supply is automatically interrupted based on ambient temperatures generally 15°F or 20°F



# What is Unbundled in the Natural Gas Business

- Services Competitively Available Now:
  - Commodity
  - Capacity - upstream
  - Balancing
  - Billing
- Potential Competitive Services
  - Metering
  - Information Services (Smart Grid)



# Transmission Siting in New York

- New York State Siting Law (Article VII)
  - Only intrastate
  - Requires that an applicant apply for a Certificate of Environmental Compatibility and Public Need before constructing a facility
- Applies to pipelines extending at least 1,000 feet and operated at 125 psig or more
- Pipelines located wholly underground in a city or within the right of way of a highway or street, or replacing an existing transmission facility and less than one mile long are subject to the State Environmental Quality Review Act



# Natural Gas Safety Performance Measures

- Ensure safety in a changing environment
  - Address risks
  - Measure performance
  - Motivate LDCs to maintain and improve performance
- Specific measures:
  - Damage prevention
  - Leak management
  - Emergency response times
  - Infrastructure enhancement (replacement of leak-prone pipe)



# Rate Case Performance Measures

- As LDCs file rate cases, DPS staff recommends they achieve specific targets
- Negative rate adjustments if targets not met
- Targets set based on LDC's past history and trends
- Staff submits testimony in rate cases, and may negotiate a settlement
- Multi-year rate plans may require improvement over time
- Targets continue if LDC does not file a rate case



# Safety Field Personnel Responsibilities

- Construction inspections
- Incident investigations
- Safety complaint investigations
- Damage prevention program
- Record and field audits
- Transmission facilities design and specification review
- Code revisions and waivers