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# THE IOWA NATURAL GAS SYSTEM

NARUC Energy Regulatory Partnership Program

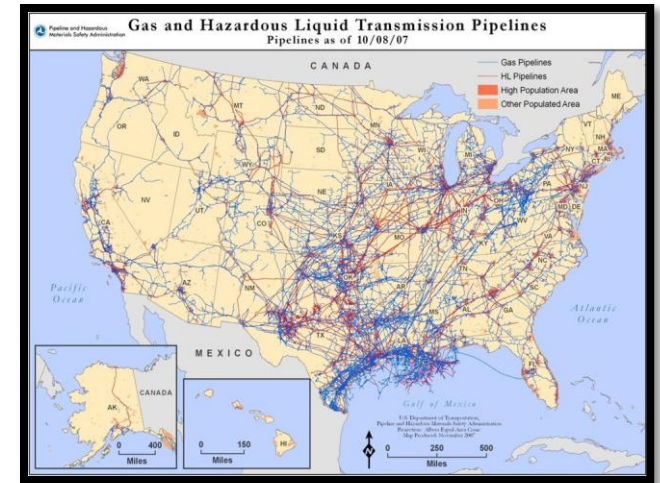
The Public Services Regulatory Commission of Armenia  
and The Iowa Utilities Board



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# GAS SECTOR CHARACTERISTICS

- Underground System
  - Transmission, distribution mains and service piping located below ground
- Product carried by pipelines in Iowa
  - Natural Gas, LPG, Hazardous Liquids (ammonia, propane, crude oil, etc.)
- Systems categorized as either
  - Transmission
    - Interstate
    - Intrastate
  - Distribution
  - Underground Storage



# INTERSTATE NATURAL GAS TRANSMISSION

- 10,370 km of interstate transmission pipeline in Iowa
- 5 Interstate systems
  - NNG
    - 7,039 km of pipe
      - Mostly coated steel and cathodically protected
      - Some bare steel, plastic and other types
  - NGPL
    - 1,352 km of coated steel cathodically protected pipe
  - ANR
    - 969 km of coated steel cathodically protected pipe
  - NBPL
    - 706 km of coated steel cathodically protected pipe
  - Alliance
    - 304 km of coated steel cathodically protected pipe

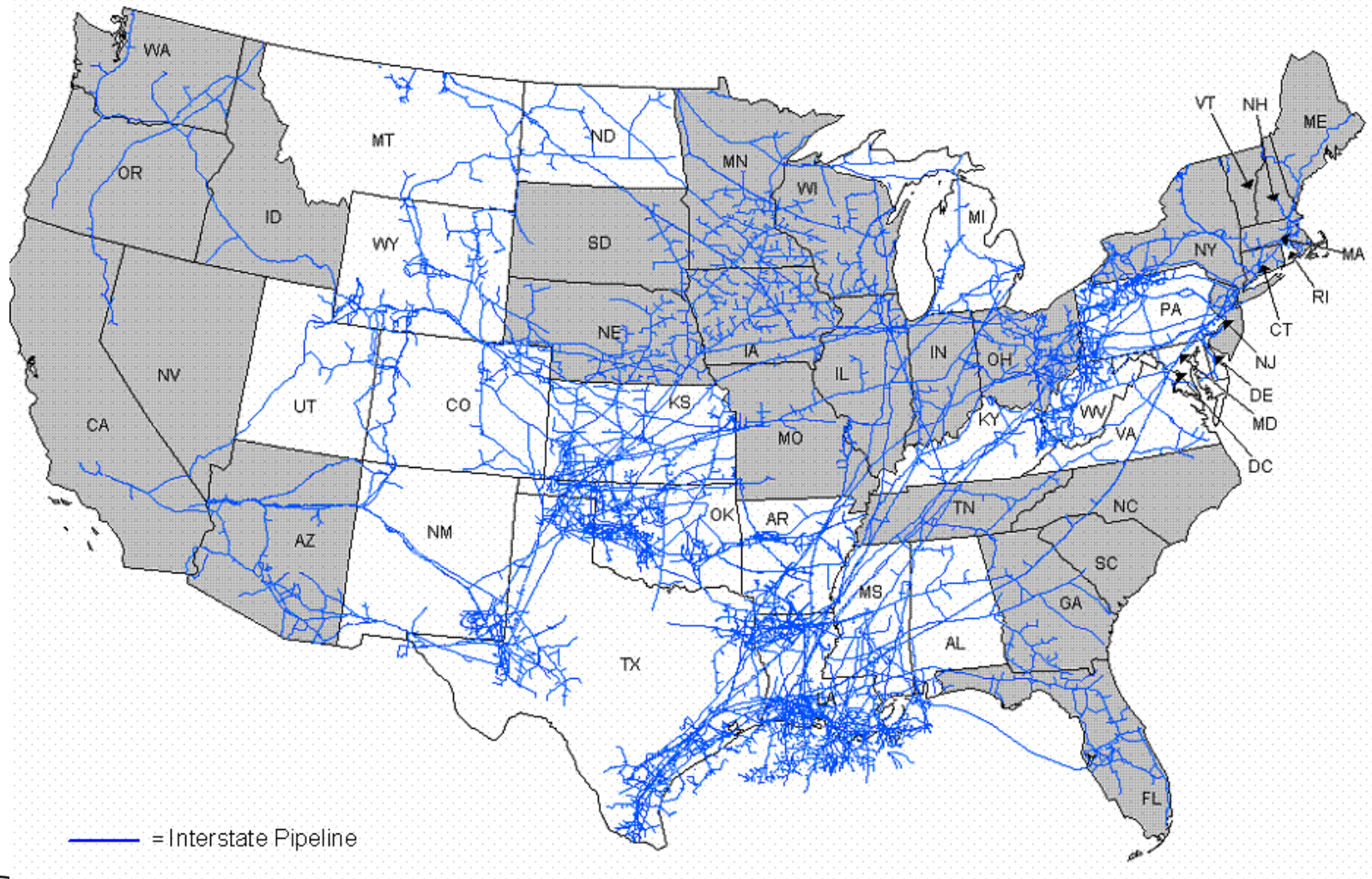


# Interstate Natural Gas Transmission cont ...

- Natural gas volumes:
  - Annual imports 64,260 mln cubic meters
  - Annual exports 52,420 mln cubic meters
    - Iowa is a major transportation route
  - Annual gas consumption 11,840 mln cubic meters
    - Avg daily volume 32.3 mln cubic meters per day
    - Avg daily volume in January 49 mln cubic meters per day
  - Consumption is heating load dominated
    - Ethanol and electric generation also significant



# Interstate Natural Gas Transmission cont ...



# INTRASTATE NATURAL GAS TRANSMISSION

- 39 Intrastate transmission operators
  - 3,042 km of intrastate lines
    - 2,456 km cathodically protected coated steel pipe
    - 586 km of polyethylene pipe
  - Operators range from
    - IP&L with 1,210 miles of transmission lines
    - ADM with 1.6 km of transmission line



# Intrastate Natural Gas Transmission cont...

- Permits are required for all intrastate pipelines that operate above 1,034 kPa or are defined as transmission
  - Transmission is defined as:
    - ASME B 31.8 – Pipeline segments that transport gas from a gathering system, gas processing plant output, or storage field to a high or low pressure distribution system, high volume customer, or another storage field
    - CFR 192 – Pipeline other than gathering line that: (1) transports gas from a gathering line or storage facility to a distribution center , storage facility or large volume customer that is not down stream from a distribution center; (2) operates at a hoop stress of 20 percent or more of SMYS\*; or (3) transports gas within a storage field



\*SMYS - Specified Minimum Yield Strength of the pipe steel

# Intrastate Natural Gas Transmission cont...

- Permitting process includes landowner protections
  - Informational meetings
    - Must be held for lines greater than 8 km and operating above 1,034 kPa
    - Must be held not less than 30 days nor more than 2 years prior to the filing of the petition for permit
    - Published and mailed notice of the information meeting must be sent to affected parties
    - Prospective petitioner must coordinate the informational meeting's time, place, and location with the Board to allow scheduling of a presiding officer
    - Personnel must be in attendance to answer landowner questions concerning the project, easements and payments



# Intrastate Natural Gas Transmission cont...

- Permits require:
  - Legal description of the route
  - Maps of the proposed route
  - Engineering specifications
  - Proof of company solvency or bonding
  - Statement of purpose
  - Restoration plan if on agricultural land
  - Statements on:
    - Nature of lands, wetlands, waters, & facilities
    - Possible alternate routes
    - Relation to current or future land use and zoning ordinances
    - Inconvenience or injury to property owners



# Intrastate Natural Gas Transmission cont...

- Permits require:
  - Affidavit that informational meeting held (if applicable)
  - If eminent domain (taking of private property rights) is sought
    - Legal description of property
    - Legal description of right of way
    - Specific easement rights being requested
    - Name and addresses of owners and parties in possession
    - Map of property with dimensions and location of pipeline



# Intrastate Natural Gas Transmission cont...

- Hearings
  - A hearing is held for every new pipeline permit and for permit renewals when there are objectors
  - Notice of hearing is published in the local newspaper
  - Notice must be served to owners and parties in possession when eminent domain is requested or when not all voluntary easements have been attained
  - Hearing are presided over by the board or a duly appointed Administrative Law Judge
  - Public has opportunity to file objections to the petition



# NATURAL GAS STORAGE FACILITIES

- Interstate underground storage regulated by PHMSA
  - 8,806 mln cubic meters of storage in Iowa
- No intrastate storage facilities in Iowa
  - If built would be regulated by the Iowa Utilities Board
  - Permit would be required



# Natural Gas Storage Facilities cont...

- A storage facility permit would require:
  - All items required for a intrastate pipeline permit
  - A description of all lands under which the storage is proposed along with a map
  - A map showing the location of:
    - Machinery
    - Appliances
    - Fixtures
    - Wells
    - Stations



# LOCAL DISTRIBUTION COMPANIES

- 5 Investor owned LDC
  - 923,000 services
  - Largest - MidAmerican with 492,000 services
  - Smallest - Allerton with 328 services
- 50 municipally owned LDC
  - 52,000 services
  - Largest – Cedar Falls with 11,200 services
  - Smallest – Prescott with 111 services
- Other LDC systems
  - 450 total services
- 4 LPG Systems
  - 300 services



# Local Distribution Companies cont...

- 5 Investor owned LDC
  - 4 are subject to rate regulation
  - Must comply with minimum safety requirements
  - Subject to inspections
- 50 municipally owned LDC
  - Rate regulation voluntary
  - Must comply with minimum safety requirements
  - Subject to inspections
- Other LDC and LPG systems
  - Not subject to rate regulation
  - Must comply with minimum safety requirements
  - Subject to inspections



# QUESTIONS?



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