

# Natural Gas Access and Expansion

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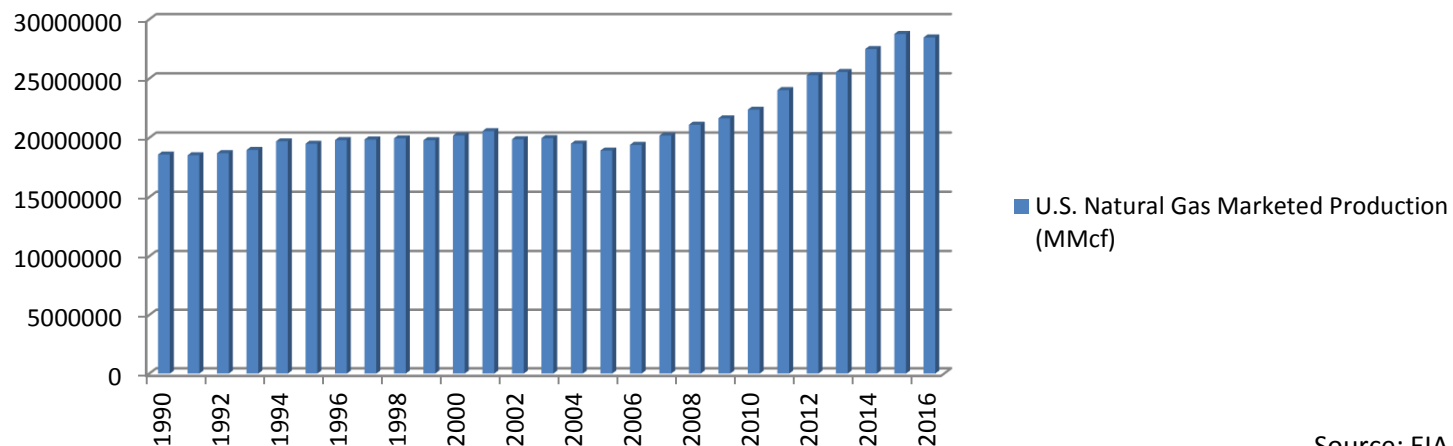
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# Natural Gas Basics

- Natural Gas Production in the lower 48 has experienced a significant increase over the past 10 years

**U.S. Natural Gas Marketed Production (MMcf)**

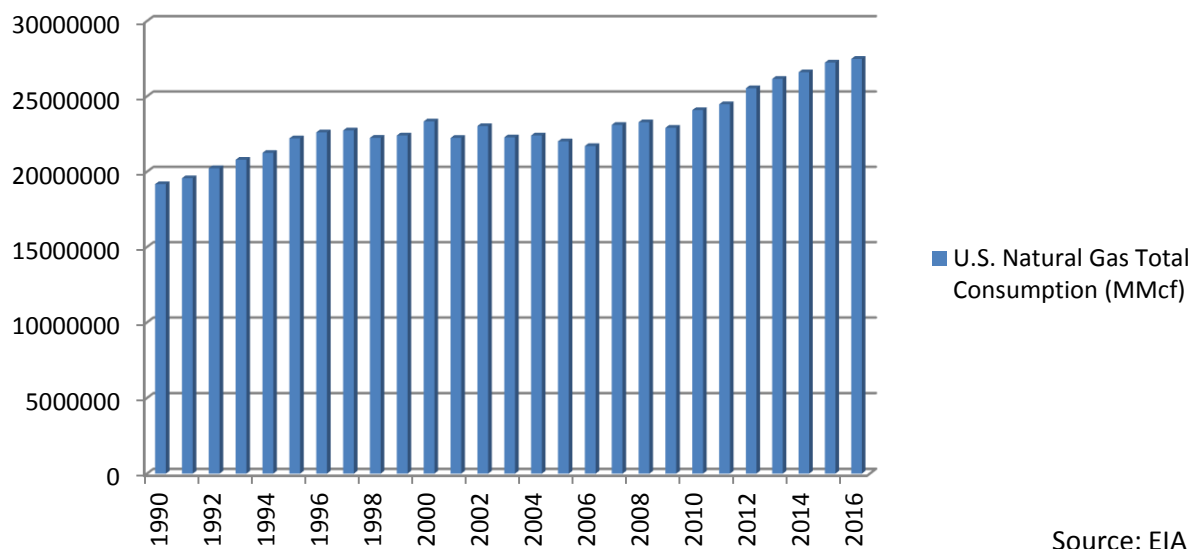


Source: EIA

# Natural Gas Basics

- Total Consumption over the past decade has experienced a similar growth

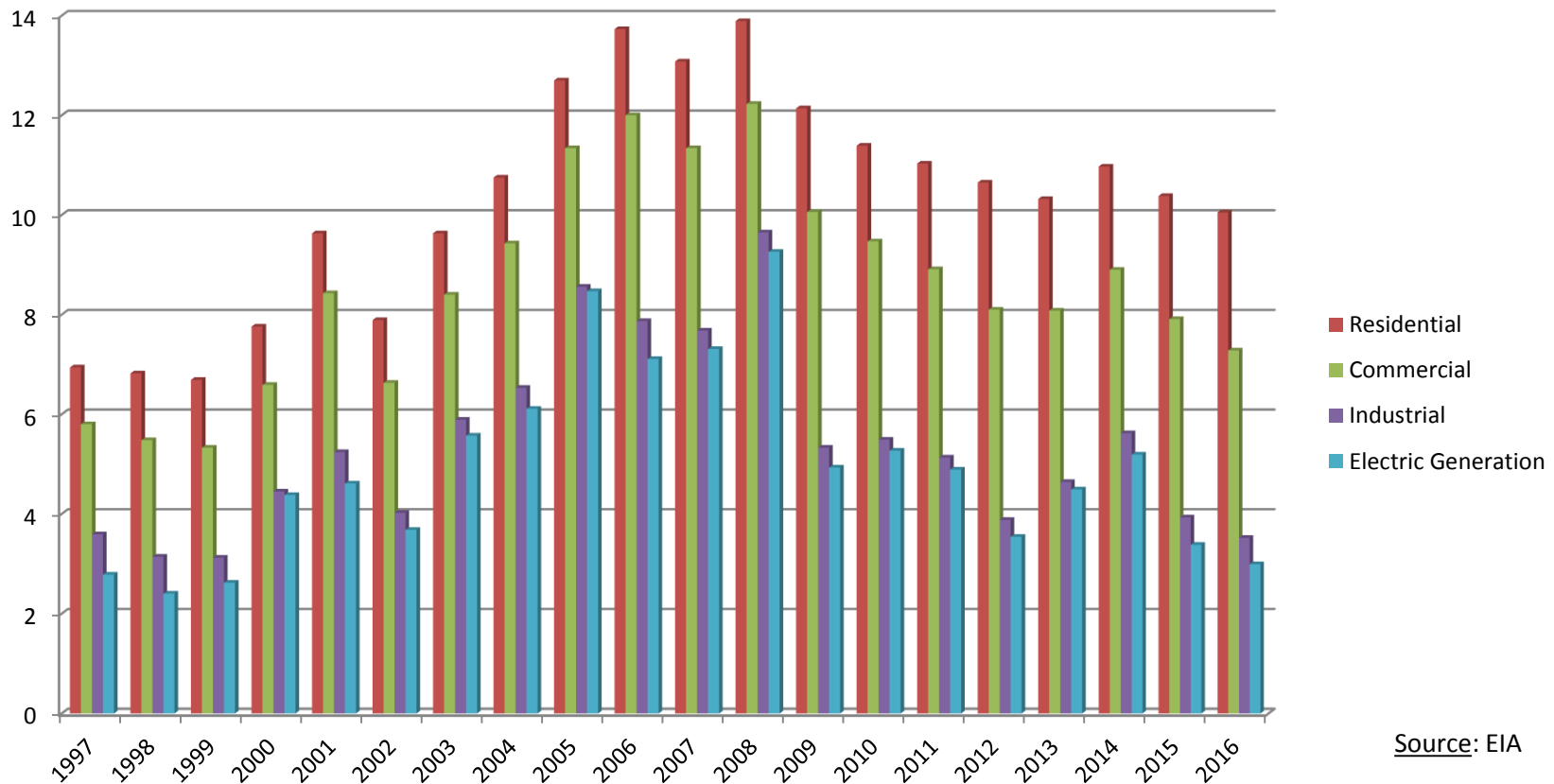
**U.S. Natural Gas Total Consumption (MMcf)**



Source: EIA

# Natural Gas Basics

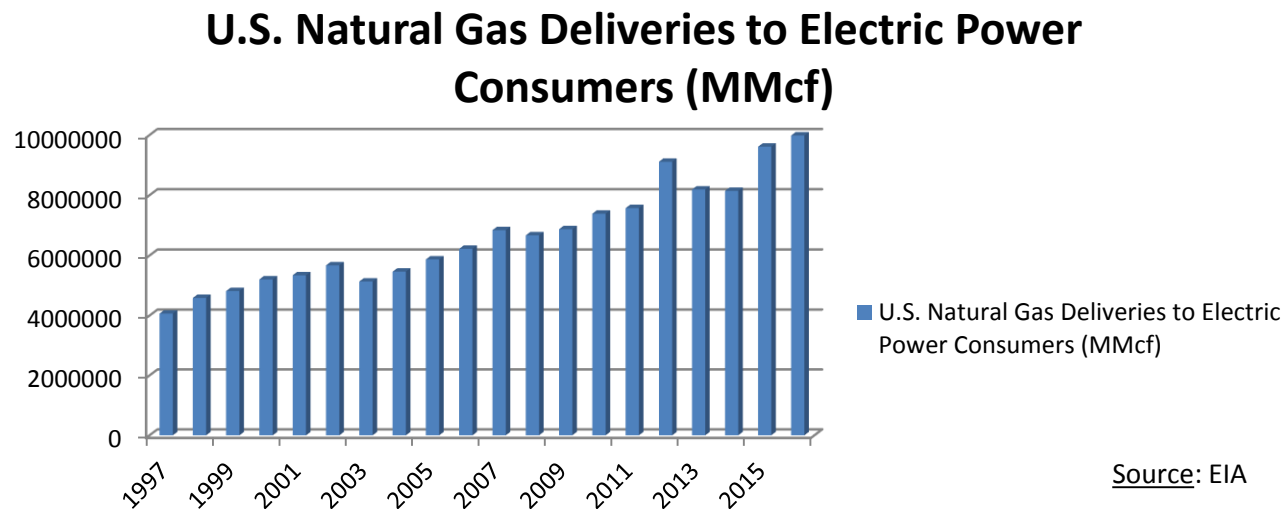
- US Natural Gas Prices by class (Mcf)



Source: EIA

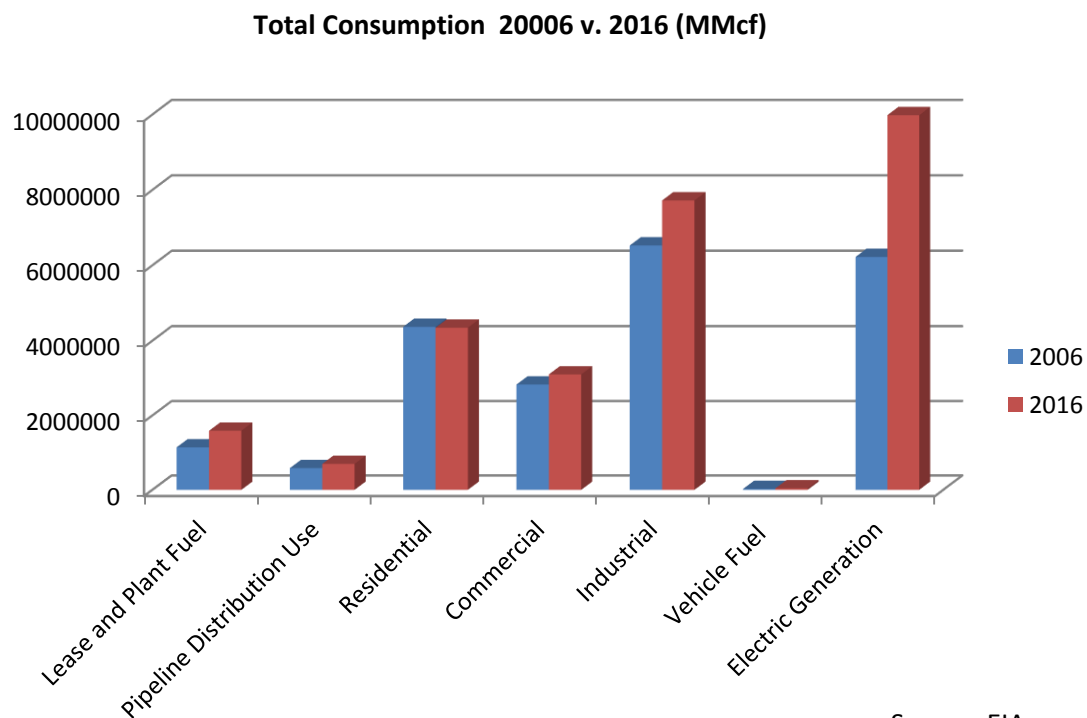
# Natural Gas Basics

- Demand for Natural Gas in Generation has been growing steadily



# Natural Gas Basics

- Consumption by End-Use Sector: 2006 v. 2016

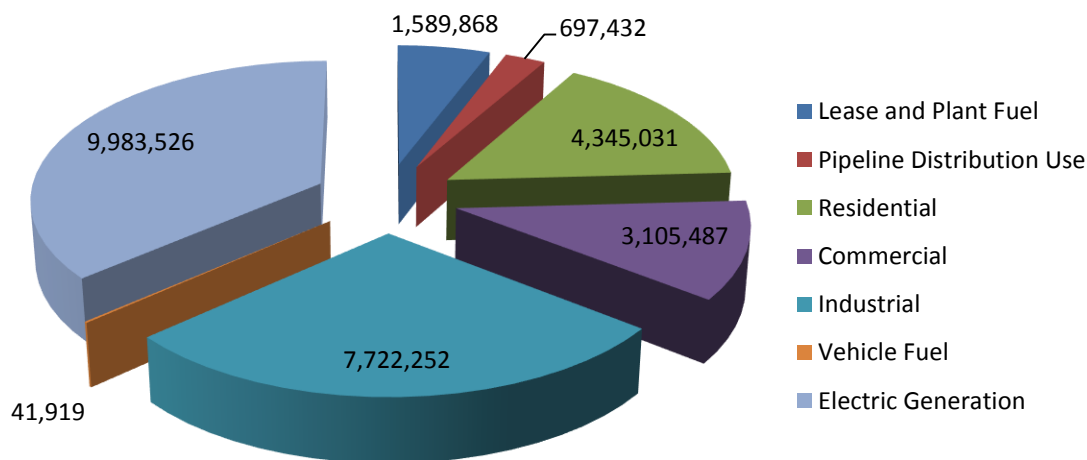


Source: EIA

# Natural Gas Basics

- Consumption by End-Use Sector – 2016

Total Consumption 2016 (MMcf)



Source: EIA

# Natural Gas Basics

- There are 2 Regulatory Elements
  - F.E.R.C.
    - Interstate Pipelines/Commerce
  - **State P.U.C./P.S.C./D.P.U.**
    - Local Distribution Companies (LDCs)



# Natural Gas Basics

- **Obligation to Serve vs. Obligation to Connect**
  - Unlike Electricity, Natural Gas is not considered an essential service
  - Residential and Commercial & Industrial uses of Natural Gas face competitive fuels
  - [However] once a customer is connected to the LDC's franchise, the LDC has an obligation to serve

# State P.U.C./P.S.C./D.P.U.

- Rule of Thumb on LDC expansion:  
“if the project increases costs to existing customers it is not permitted”\*\*\*
- \*\*\* unless new customer(s) pay(s) the Contribution in Aid of Construction (CIAC)

(this has been the standard approach on expansion)

# Impediments to Expansion

- Cost Barriers (LDC)
  - LDC expansion costs; depending on location, system design and jurisdiction, they can vary from several thousand dollars to millions (cost include labor, permitting, restoration, right-of-way)
  - Availability of Expert Labor. Depending on existing condition of the distribution system, LDCs may need to assign crews to repair/maintenance instead of expansion

# Impediments to Expansion

- Cost Barriers (Consumer)
  - Initial financial investment involved
    - CIAC
      - Standard labor/expansion costs
      - Additional time/labor costs depending on environmental factors and terrain
    - Consumer equipment
      - Cost of acquiring new or converting existing equipment
  - Return on Investment
    - Depending on customer, savings may not be there

# Funding Approaches

- Customer-Funded
  - No cost up to a certain distance from existing mains
  - Some mechanism that allows the customer to repay LDC over a certain number of years (riders/surcharges/payment plans)
- Utility Funded
  - Loans, bonds or shareholder funds
  - Ratemaking incentives (higher ROI)

# Options for PUCs

- Use a robust, open and transparent process that allows for important and diverse input
- Allow LDCs to offer no-cost line extensions within certain parameters
- Adjust CIAC to reflect market expectations
- Allow/require that consumers pay CIAC over time

# Options for PUCs

- Encourage targeted expansion programs
- Allow expansion programs that take into consideration anchor customers
- Allow LDCs to provide financial mitigation/assistance to customers
- Innovative Financial Incentives

# States w/ “Rural” Expansion Policy in Place

- Indiana
- Kansas
- Mississippi
- Nebraska
- Pennsylvania
- Wyoming



# Virtual LDC – Something to consider?

- Within an LDC's franchise territory providing
  - CNG
  - LNG



# Sources/References

1. **Report of the NARUC Task Force on Natural Gas Access and Expansion**  
<https://pubs.naruc.org/pub.cfm?id=8F38EF6F-D44F-80A0-578C-CF1610C47520>
2. **U.S. Energy Information Administration (EIA)**

# Questions?



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