FUTURE DEVELOPMENTS IN THE NATURAL GAS INDUSTRY: A REGULATOR'S VIEW

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DISCLAIMER

- The opinions expressed in this presentation are mine, and mine alone, and are not those of the Commission, any Commissioner (other than myself) or any member of the staff of the Commission. Further, nothing in this presentation should be attributed to any case or matter before the Commission, to any member of the staff of the Commission, other Commissioner or the Commission.

AGENDA

- Two 600-pound Gorillas in the room:
  - Energy Efficiency
  - Protecting the Environment

AGENDA

- Energy Efficiency
- Electric to Gas Substitution
- Gas Procurement
- Rate Design
- Integrated Resource Planning (IRP)

SOURCES

- SB 376, “Missouri Energy Investment Act”
- “Electric-to-Gas Substitution: What Should Regulators Do” by Ken Costello, NRRI
- National Academies’ report to Congress, “Review of Site (Point-of-Use) and Full-Fuel-Cycle Measurement Approaches to DOE/EERE Building Appliance Energy Efficiency Standards”

ENERGY EFFICIENCY

- SB 376 created the “Missouri Energy Efficiency Investment Act”
  - State policy is to value demand-side investments equal to traditional investments in supply and delivery infrastructure and allows recovery of all reasonable and prudent costs of delivering cost effective demand-side programs
  - Such programs must be approved by commission
  - Programs must result in energy or demand savings and is beneficial to all customers in the customer class in which the programs are proposed

ENERGY EFFICIENCY

- Commission is in in the process of promulgating rules to implement the Act
- Applies only to electric utilities
  - However, could be expanded to gas utilities if successful
- Financial incentives for meeting targets
- Timely cost recovery and timely earnings opportunity
- Rate Design to incent utilities to implement energy efficiency programs

ELECTRIC TO GAS SUBSTITUTION

- Refers to the decision of generally small residential customers to use natural gas rather than electricity for certain end-use applications (hot water heater, cooking, etc.)
- Potential to produce economic and environmental benefits
  - Decrease use of natural gas from gas-fired electricity generating units
  - Reduce total energy use
  - Fewer emissions of air pollutants

ELECTRIC TO GAS SUBSTITUTION

- Consumption site vs. full fuel cycle
- National Academies' report to Congress, "Review of Site (Point-of-Use) and Full-Fuel-Cycle Measurement Approaches to DOE/EERE Building Appliance Energy Efficiency Standards"
- The report found that the Department of Energy (DOE) should consider changing its measurement of appliance energy efficiency to one based on the full-fuel-cycle, which takes into account the amount of energy produced and lost from the point of production to the final point of use. This more accurate measurement would provide consumers with more complete information on energy use and environmental impacts.

ELECTRIC TO GAS SUBSTITUTION

- Regulator's perspective
  - Improve quality of information offered to consumers
  - Review rate structures of both gas and electric utilities to eliminate favoritism
  - Look at financial incentives to customers who convert from electricity to natural gas for end use
  - Make sure intervention does not cause market distortions
- Goal is to achieve combination of market and regulatory influences most likely to produce economic efficiency and environmental protection

GAS PROCUREMENT

- Hedging Programs
  - Fixed price contracts
  - Staggered contracts
  - Financial instruments
  - Storage
  - Gas supply
- Portfolio approach
- Affiliate issues

RATE DESIGN

- Revenue decoupling
- Straight Fixed Variable (SFV) rate design
- Earning sharing mechanism
- Trackers
  - Bad debt
  - Pipeline integrity management cost
  - Pipeline replacement
  - Energy efficiency
- Formula Rate Plans

INTEGRATED RESOURCE PLANNING (IRP)

- IRP is the combined development of electricity supplies and energy efficiency improvements to provide energy services at minimum cost, including environmental and social costs

INTEGRATED RESOURCE PLANNING (IRP)

- In Missouri, about 80% of electric generation comes from coal
  - Environmental issues are a huge concern due to cost
- Issue: Suppose you have a 40 year old coal plant. What do you do?
  - Convert to gas?
  - Close and build a Combined Cycle Gas Turbine Plant?
  - Nuclear? Wind? Solar?

INTEGRATED RESOURCE PLANNING

- From an IRP perspective, energy efficiency and protecting the environment are the big issues
- Natural Gas plays an important part in both

QUESTIONS?

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