Barriers to Implementation of Methane Emissions Reduction Projects in Gas Transmission and Distribution

Natural Gas STAR Annual Implementation Workshop
 Transmission and Distribution Panel Discussion

Bruce B. Henning, ICF - Moderator
Robert Smith, DOT - PHMSA
Darrell Johnson, Southern California Gas Company
Lisa Beal, INGAA

October 20, 2009
Why Focus on Gas Transmission and Distribution?
2007 Transmission Sector Methane Emissions

- Majority of emissions from fugitives and venting at compressor stations

- Station Fugitives: 8 Bcf
- Station Venting: 8 Bcf
- Centrifugal Compressors: 8 Bcf
- Pipeline Leaks: 8 Bcf
- Pneumatic Devices: 11 Bcf
- Gas Engine Exhaust: 12 Bcf
- Reciprocating Compressors: 41 Bcf
- Other Sources: 4 Bcf

2007 Distribution Sector Methane Emissions

- Majority of emissions from underground pipe leaks and fugitives from metering and regulator stations

Technologies Exist
Why aren’t they more widely deployed?

- Financing Projects
  - How do these projects compete with other opportunities?
  - What are the constraints?

- Competitiveness
  - Do these projects impact the competitiveness of gas to consumers or between competing pipelines?

- Cost recovery and return on investment
  - What are the implications of “Cost of Service” rate regulation on the adoption deployment of technologies?
Cost of Service Regulation: Overview of a Rate Case

- **Step 1:** The Annual Revenue Requirement – the total revenue that must be received each year to recover costs and earn a fair return.
  - Return on “Rate Base” plus “known and measurable expenditures” (O&M, taxes, etc.)
- **Step 2:** Functionalization – Allocating costs to the services and customers that are responsible for these costs. (Cost Causation)
- **Step 3:** Calculating Rates – Divide the costs that are allocated to each service by the amount of service that is expected to be sold.

*Rate Cases are quasi-judicial proceedings and like court proceedings. They take a considerable amount of resources. They can be adversarial!*