Emission Reduction through Fuel Efficiency Incentives and Voluntary Cost Recovery Mechanisms

Natural Gas STAR Annual Implementation Workshop
Transmission and Distribution Panel

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Why Focus on Gas Transmission and Distribution?
2008 Transmission Sector Methane Emissions (97 Bcf)

- Majority of emissions from fugitives and venting at compressor stations

- Reciprocating Compressors: 40 Bcf
- Gas Engine Exhaust: 11 Bcf
- Station Fugitives: 7 Bcf
- Centrifugal Compressors: 8 Bcf
- Pipeline Leaks: 7 Bcf
- Gas Engine Station Venting: 8 Bcf
- Pneumatic Devices: 11 Bcf
- Other Sources: 5 Bcf
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Bcf = billion cubic feet

2008 Distribution Sector Methane Emissions (74 Bcf)

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

- Customer Meter Leaks: 6 Bcf
- Plastic Mains/Services: 6 Bcf
- Cast Iron Mains: 9 Bcf
- Regulator Stations: 11 Bcf
- Protected Steel Mains/Services: 4 Bcf
- Other Sources: 2 Bcf
- M&R Stations: 19 Bcf
- Unprotected Steel Mains/Services: 17 Bcf

Bcf = billion cubic feet

Technologies Exist

Why aren’t they more widely deployed?

Finance 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: **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!*