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
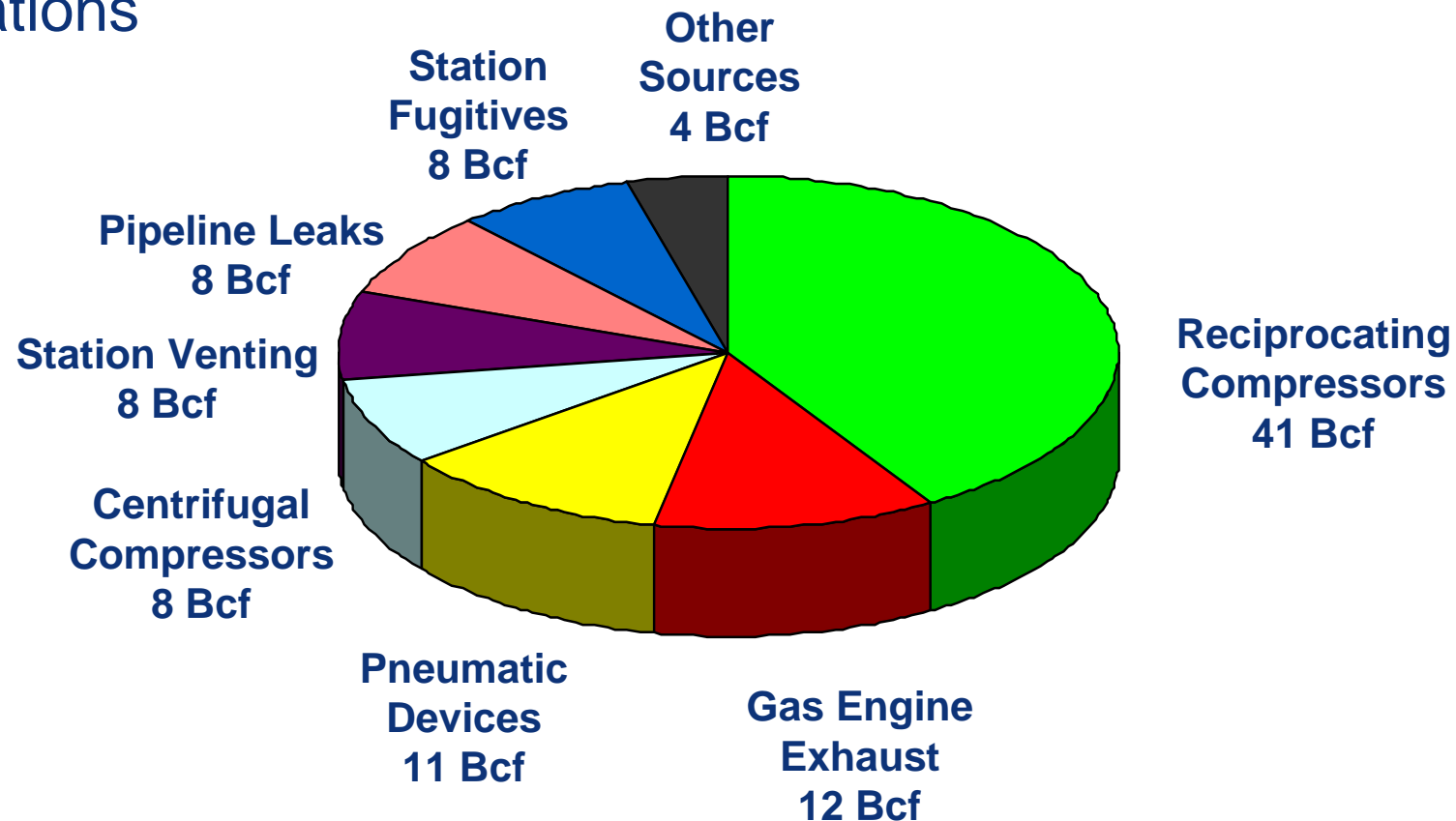Darrell Johnson, Southern California Gas Company
Lisa Beal, INGAA

October 20, 2009

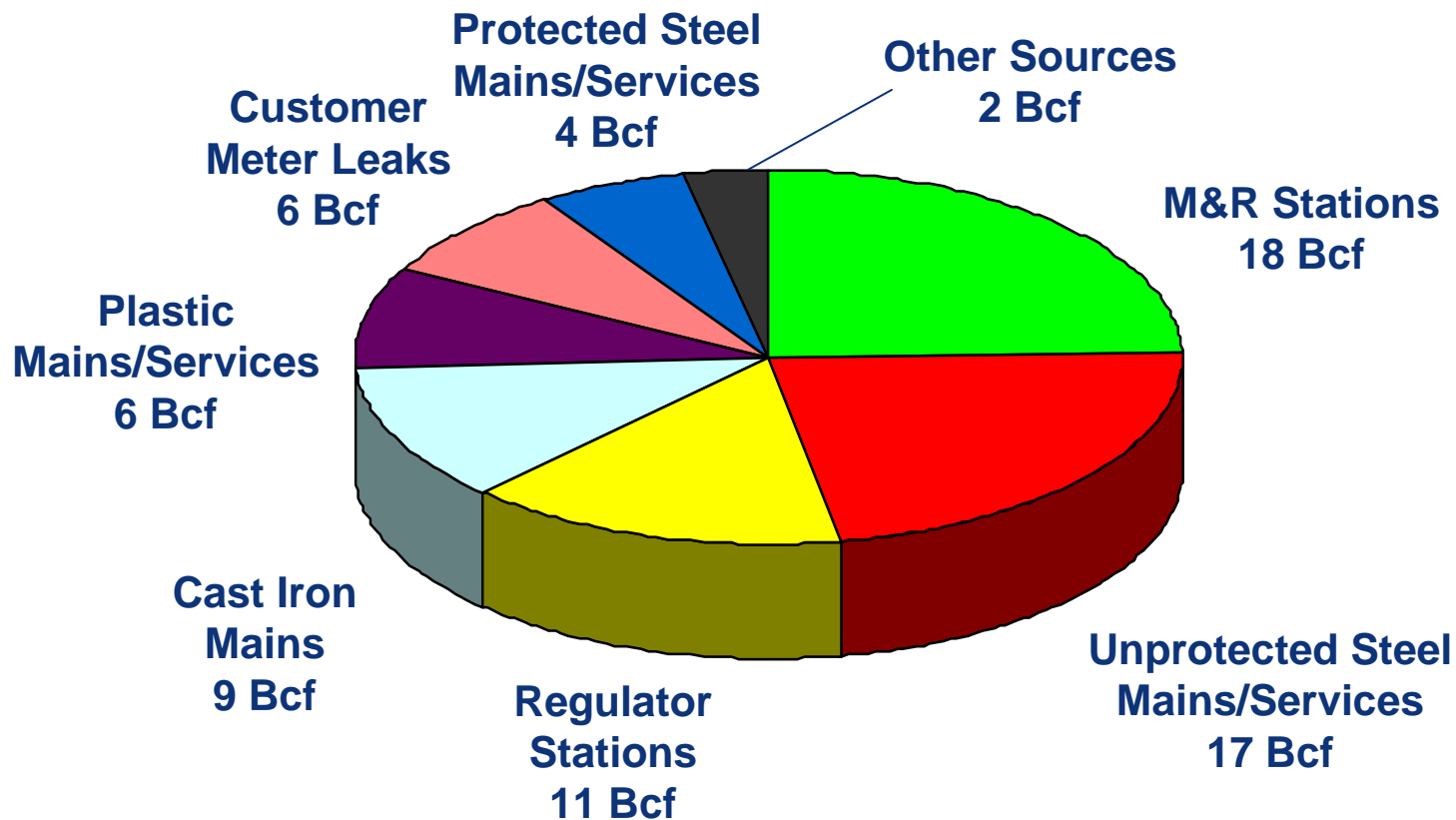# Why Focus on Gas Transmission and Distribution?

2007 Transmission Sector Methane Emissions

🔥 Majority of emissions from fugitives and venting at compressor stations

2

2007 Distribution Sector Methane Emissions

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

Pie chart of 2007 distribution sector methane emissions:
- M&R Stations: 18 Bcf
- Unprotected Steel Mains/Services: 17 Bcf
- Regulator Stations: 11 Bcf
- Cast Iron Mains: 9 Bcf
- Plastic Mains/Services: 6 Bcf
- Customer Meter Leaks: 6 Bcf
- Protected Steel Mains/Services: 4 Bcf
- Other Sources: 2 Bcf

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!