



Pipeline Safety: Planning for a Safer Future

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San Bruno Incident

- One of the most significant natural gas pipeline events in the past 30 years
- Tragic and devastating:
 - 8 dead
 - 60 injured
 - 37 homes destroyed
 - 15 acres destroyed

TV Coverage



San Bruno Neighborhood



Sources: ESRI gas pipeline by Rextag Strategies, neighborhood image by Pictometry International

John Blanchard / The Chronicle

Damaged Pipe



How Did This Occur?

- Cause of incident still unknown
- National Transportation Safety Board (NTSB) investigation underway
- Important not to...
 - Speculate on cause
 - Attempt to legislate or regulate a solution until we understand more
- NTSB investigation:
 - Preliminary: May take few months
 - Final: Year+

Impact on Reauthorization

- San Bruno: Dramatic impact
- 8 hearings on pipeline safety & pipeline safety reauthorization
- 5 proposed pipeline safety bills
 - Fifty mandates
 - Many provisions would result in significant expenditures of dollars/resources
 - Expect significant increase in customer rates

Key Proposed Legislative Elements

- Expansion or removal of high consequence areas (HCAs)
- Expansion of transmission integrity management program (TIMP) outside of HCAs
- In-line inspection (ILI) or equivalent required every 5 years
- Automatic shutoff valves (ASVs) / remote control valves (RCVs) required
- Expansion of excess flow valve (EFV)
- Replacement of older pipelines

Anticipated Cost of Three Provisions

- ASVs/RCVs: \$13,000,000,000
 - Cost per install: \$100,000 - \$1M
 - If only required in HCAs: at 1 mile intervals
 - Dramatically higher cost if expanded to all transmission pipelines
 - Cost per customer: \$185
- Cost to make unpiggable intrastate pipelines piggable: \$12,000,000,000
- Replacement of pre-1960: \$150,000,000,000
 - Cost per customer: \$2100

Other Issues to Consider

- If ASVs/RCVs required in HCAs
 - Streets will need to be dug up
 - Need to install vault large enough to house valve & person (for maintenance)
 - Need to keep valve secure from vandals
- If replacement of older pipelines is mandated...
 - Would company be allowed to put new pipeline where old pipeline exists?
 - If not, where do you put the new pipeline?
 - If it's the single source for supply, the old pipeline can't be taken out of service until new pipeline is built.

Infrastructure Replacement

- Challenge for all commissioners
 - Limited number of states with rate mechanisms that promote quicker replacement of pipeline.
 - Create rate mechanism that will allow operators to:
 - Initiate integrity management projects and recover capitol expenditures in timely manner
 - Make ongoing improvements in pipeline safety and reliability by replacing infrastructure without general rate case

Remember...

- Age is only one factor to consider for pipeline replacement
- Other factors:
 - Operating history of pipeline
 - How well pipeline has been protected from corrosion
 - Material
 - How the pipeline was constructed
 - Environment around the pipeline
- Natural gas transportation by pipeline is **THE** safest form of transportation that exists

QUESTIONS?

