

SB 1371 Implementation Rulemaking (R.15-01-008)

SED Workshop on Best Practices

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SB 1371... (a balanced approach with safety as a priority)

With priority given to safety, reliability, and affordability of service, the commission shall adopt rules and procedures [that] ...

Minimize leaks as a hazard...

While giving due consideration to the cost considerations of Section 977, reduce emissions of natural gas from those commission-regulated gas pipeline facilities that are intrastate transmission and distribution lines to the maximum extent feasible...

...(Provide for the maximum technologically feasible and cost-effective avoidance, reduction, and repair of leaks and leaking components)



SB 1371... not the only effort to deploy state of the art technology

- Traditionally applied through lens of safety
 - Individual utilities in CA and elsewhere look for continued improvement
 - AGA October 2015 statement – “Advancing Technology Development through supporting R&D investment, pilot testing and technology implementation; working with PHMSA and other stakeholders on opportunities to increase R&D funding and deployment of technologies; advocating to state commissions the inclusion of research funding in rate cases.”
 - CPUC focus on safety
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SB 1371... not the only effort to deploy state of the art technology for continuous improvement

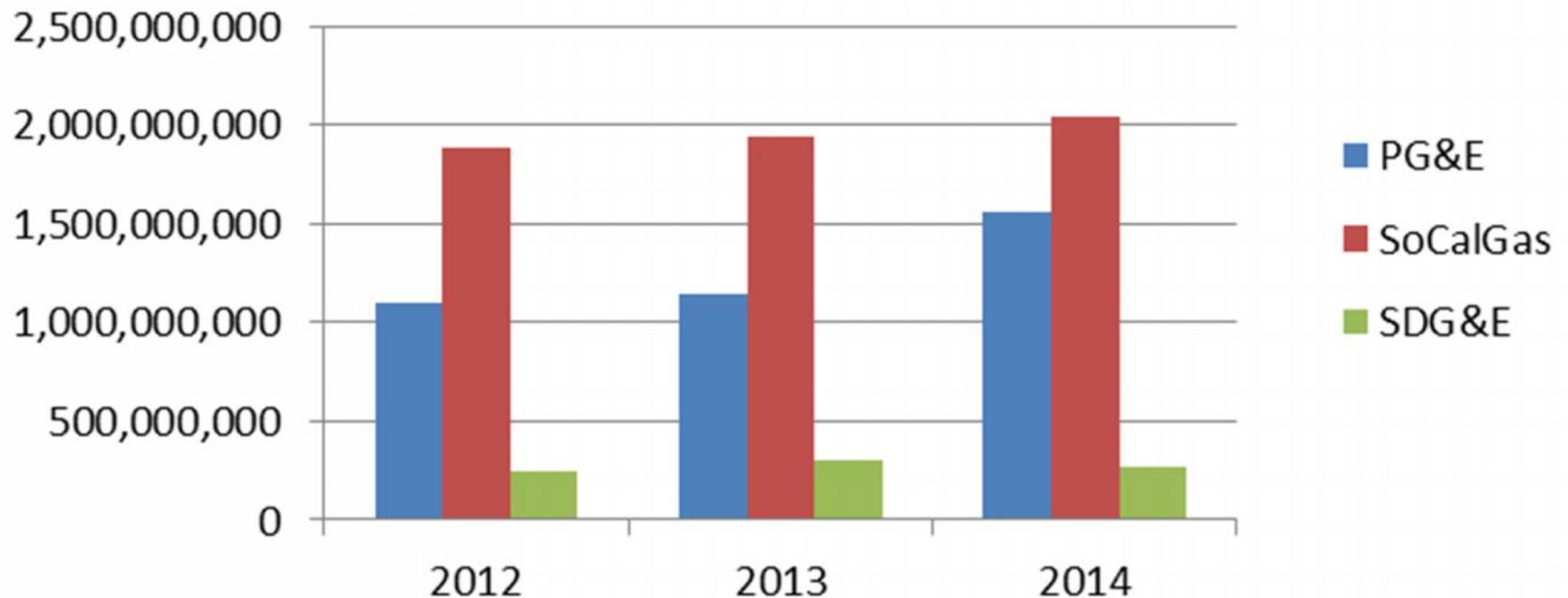
- CPUC focus on safety and continuous improvement:
 - “State and federal regulators are tasked with ensuring that pipeline and hazardous materials operators have risk management programs in place, that those programs are designed in conformance with state and federal laws and regulations, that the programs are effective in enhancing public safety, the operator’s employees safety, environmental safety, and that the safety of the entire system and operation continues to improve.”
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Overlap of SB 1371 and safety

- “(b) It is undisputed that natural gas pipelines and infrastructure in California leak natural gas. The incidence of natural gas leaks and their repair is considered by the industry and regulators to be a significant indicator of pipeline integrity and safety.”

Finding and fixing leaks improves safety and protects the environment. New technology to do that better, faster, and with ability to ID leak size (volume) should be deployed to the maximum extent feasible

Approved Revenue Requirements For Operating the NG Distribution System



Source: Electric and Gas Utility Cost Report - PUC Section 747 Report

Available at: <http://www.cpuc.ca.gov/NR/rdonlyres/A87AF775-6CBF-4076-984E-08675CE39332/0/2014AB67Final.pdf>

Outline of discussion

- Economic and environmental benefits of enhanced leak detection
- Economic and environmental benefits of prioritizing leaks by size
- Relationship between enhanced leak detection and safety systems
- Disconnect between leak data and expenditures



Enhanced leak detection and tracking

- Large scope benefits
 - More rapid detection of leaks
 - Better pinpointing of leaks
 - Leak detection lower concentrations
 - Information on leak size
 - Improved data analysis and trend observation
 - Implications for
 - Programs to enhance and improve system safety
 - Standard LDAR (system wide and individual leak ID)
 - Repair prioritization and resource planning
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Enhanced leak detection

- Environmental Benefits

- Lower overall leak volumes due to faster response times and repair prioritization
- Lower overall leak volume through attention on new categories of leaking equipment
- Increased attention on super-emitters

- Economic benefits

- Less lost gas overall
 - Integration within safety systems
 - Better coordination and validation of leak repair and infrastructure replacement
 - New technology is commercially available today
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National Utility Policy Backdrop:

- PHMSA DIMP Program
 - Use of all reasonably available information to evaluate safety threats
 - Leak management requires “evaluating severity of leaks”
- Enhanced risk identification
 - Use of continuously improving technology
 - Data integration
- US DOT “Call to Action” for leak-prone infrastructure replacement
 - Validate the need and benefits of utility pipeline replacement programs
 - Reduce LUAF and leak backlogs



National Goals

- Enhance safety programs by operationalizing/integrating leak size (quantification)
- Accelerate/validate leak repair and infrastructure replacement
- Enhance cost effectiveness and efficacy of utility programs
- Public education and transparency
- Reduce emissions



More to do:

- Utility safety models and predictive algorithms
 - Operational pressure and pipe diameter used as surrogate for leak size
 - All things safety being equal, prioritize using quantity data
 - More transparency with models is necessary
 - Integrate leak flow volume into safety model??
- Operationalization
 - Refining quantification methods (e.g., NYSEARCH)
 - Equipment
 - Software Requirements
 - Data Processing
 - GIS System



Advancing Solutions

- Safety systems must always achieve and advance the state of the art
- Stakeholders and public benefit from information
- Disconnect between leak data and expenditures
- What leaks can and should be abated/prevented?

