

# **GOVERNMENT & INDUSTRY PIPELINE RESEARCH & DEVELOPMENT FORUM**

**Picture Slideshow**

**March 22-24, 2005  
Houston, Texas**



## Welcome

- Welcome on from "Our" Steering Committee
- Third Pipeline R&D Forum
- Building on Past Success to Sharpen Focus
  - Consensus, Coordination & Collaboration
- Today's Approach: Context, Brainstorming, and Gap Analysis
- Safety and Comfort Announcements
  - Fire Exits, Restrooms, Cell Phones
- Show of Hands Please
  - Government, Industry, Vendors

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- Pipeline Operations, Call Phones















Role and Benefit of R&D



Con Edison's Experience  
March 22, 2005





## Roadmap Overview

- Determine focus and scope of roadmap
- Select targeted technology areas
- Identify broad cross section of key stakeholders
- Select venue and required facilities
- Determine structure of roadmap sessions
  - Type of facilitators
  - Number of breakout sessions
  - Recording mechanism
  - Final product
- Compile/analyze results
- Develop implementation strategy w/timetable
- Implement roadmap



Strategic Center for Natural Gas & Oil

ROAD MAPPING



U.S. Department  
of Transportation

## Peer Reviews

### What are the government requirements?

**Under revisions to the Information Quality Act, the Government has legal authority to conduct Peer Reviews**

- Peer reviews must be performed on "Influential" & "Highly Influential" research
- A panel must be formed and preside over the peer review
  - Expertise
  - Balanced
  - Independence
- Reviews should be held earlier vs. later in the research timeline
- Reviews must address the merit of the research
- Reviews must have transparency to the public
- Agency must officially comment and denote acceptance of the panel's findings

Office of Pipeline Safety







## Reduce Risk/Increase Safety

- The Primary Driver
  - Probability
  - Consequence
- Risk is Not Static
  - Changes in Population, Encroachments
  - Changes in Terrain, Land Use

## Technology Push vs Market Pull

### > Technology Push

- Generally doesn't work
- However, running new technology concepts "up the flag pole" often stimulates ideas

### > Market Pull

- The market drives the technology development path
- Incidentally, some technology developments are so critical that parallel paths are taken, for example:
  - > Leak detection
  - > Internal inspection of pipelines







### Were any road blocks identified?

- Ensure timely process
- Quick to respond
- Flexibility w/ business plan
- Ensure that appropriate parties are involved
- Ensure that people who need technology will actually purchase it









# NYSEARCH/NGA Initiatives for Direct Assessment (DA)

- ◆ Phase 1 ECDA Validation Project  
*Phase 1: 2008-2010*
- ◆ Phase 2 DA Project  
*Phase 2: 2010-2012*
- ◆ ECDA Criteria Project  
*2014-2015*
- ◆ RFP related to Difficult Applications of DA  
*Phase 2: December 2014*
- ◆ NGA activity related to evolving Industry Standards





# DW RUPE: Pipeline Repair

Project Number	002
Date of Summary	February 1, 2009
Research Title	DW RUPE: Pipeline (L) of Mexico Pipeline Return Damage (L) to Pipeline Repair Plans
Contractor	David Johnson, Inc.
Principal Investigator	Ray Smith
Contracting Agency	Service Management Service
Estimated Completion	May 2009
Description	Project was initiated and strongly planned repair plans and operations for DW RUPE pipeline (L) to complete (L) to pipeline in the field of Mexico.









5. Better integration of standards organizations and research that affect standards  
6. Using a "basic matrix" approach to prioritize R&D investments  
7. Developing a tech transfer process for both basic and development research  
8. The willingness to "try" new technologies  
9. Managing the aging infrastructure  
10. Overcoming the "not in my backyard" public perception of the industry

**1. Damage Prevention**

a) To integrate improved excavation procedures in coordination with one-call centers  
b) Incorporating technology and knowledge from other industries and applying to prevent damage

© Benchmarking developed technologies on real pipelines  
Accelerating awareness and buy-in by excavators and







## Recommended Future Research

- ILI methods for detecting gouges containing cracks
- ILI methods for quantifying the depth of gouges/cracks
- More objective techniques for establishing the severity of mechanical damage
- Enhanced failure assessment methods for prioritizing MD





**Fin**