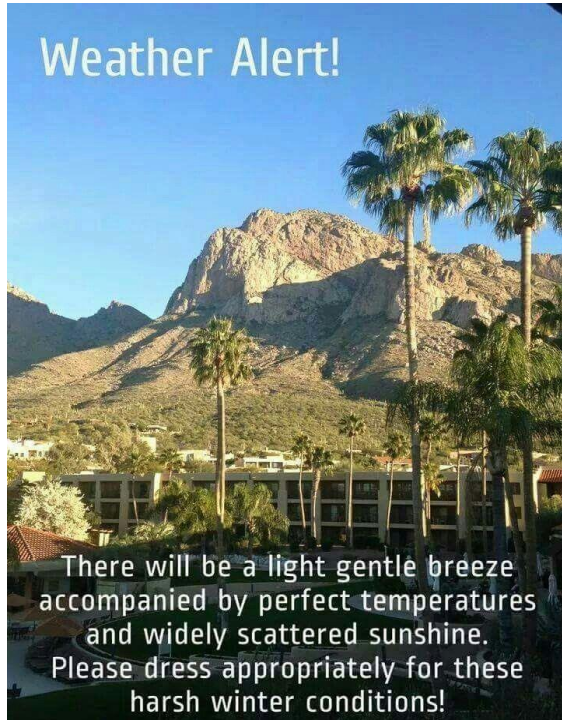


Arizona Corporation Commission

Winter Preparedness Meeting, October 24, 2017

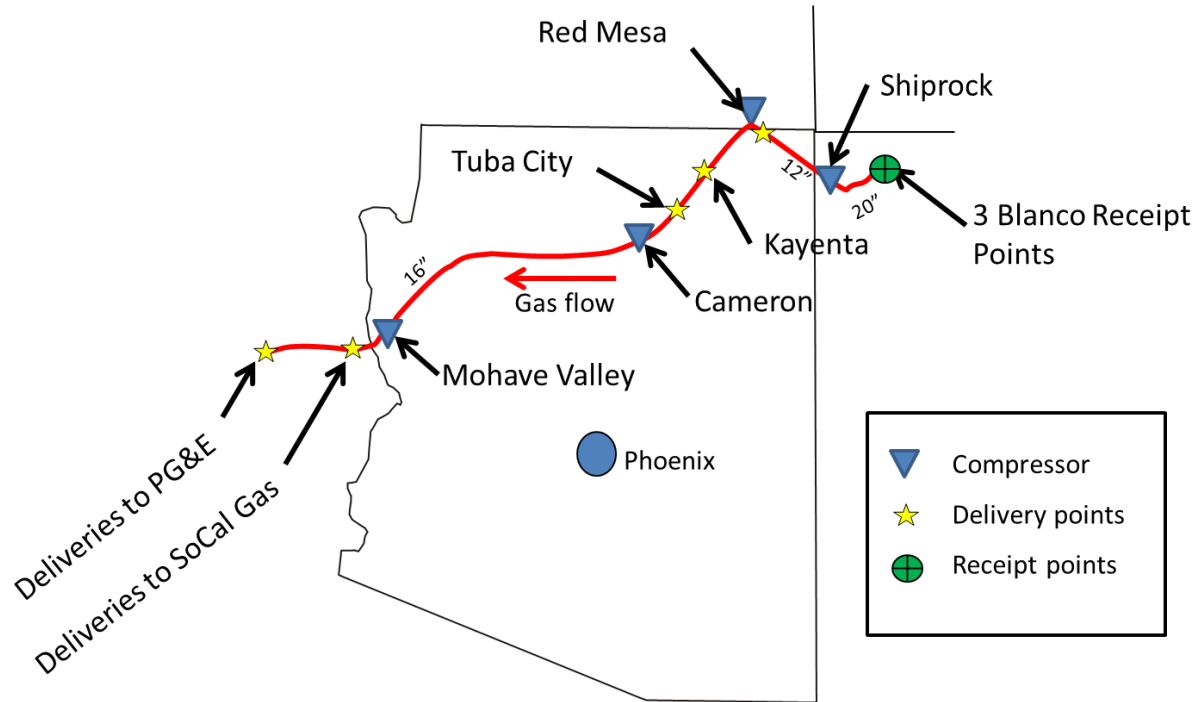


Dominion Energy

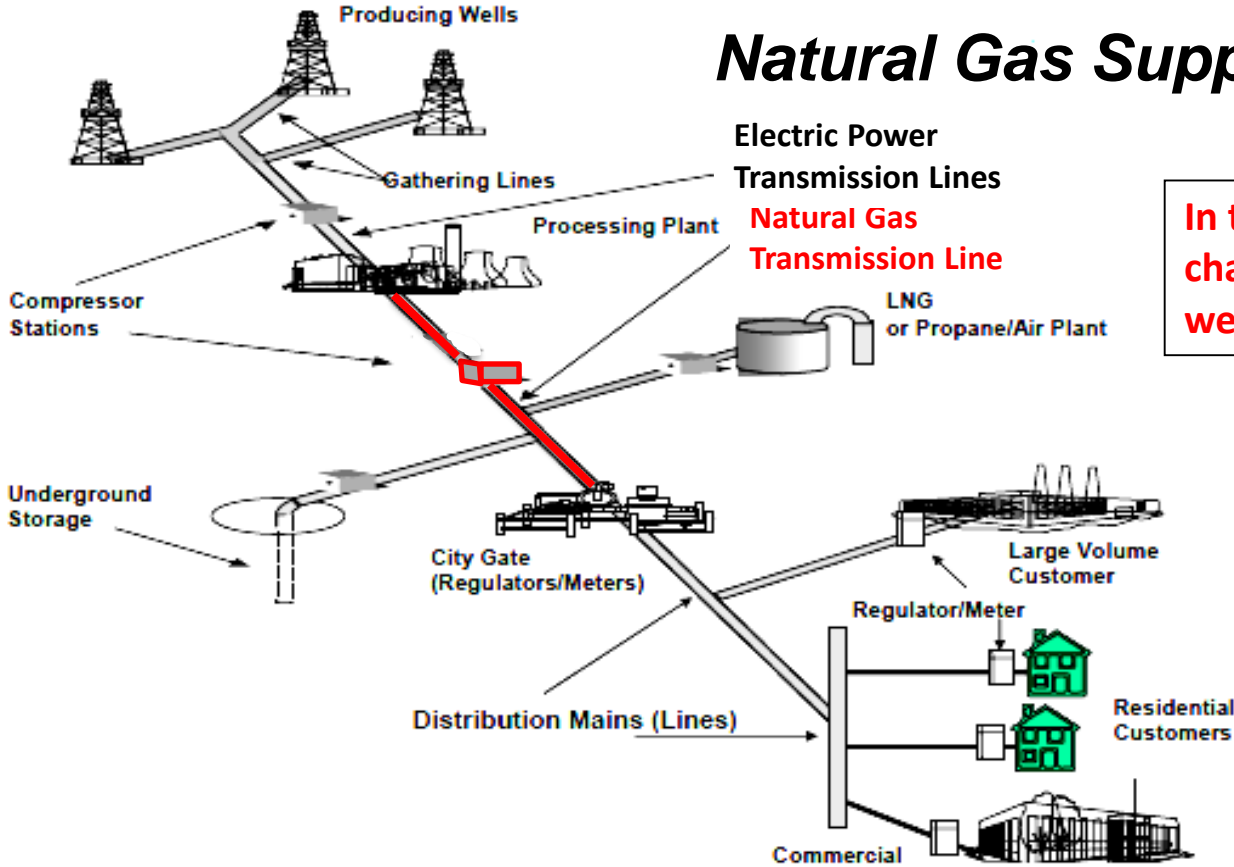
- Questar Corporation recently merged with Dominion Resources, now known as Dominion Energy.
- Dominion Energy is one of the nation's largest producers and transporters of energy.
- 25,700 megawatts of electric generation
- 15,000 miles of natural pipelines
- 6,600 miles of electric lines
- One of the largest natural gas storage systems in U.S.
- 6 + million utility and retail energy customers.

Questar Southern Trails Pipeline (QSTP)

Name remains the same



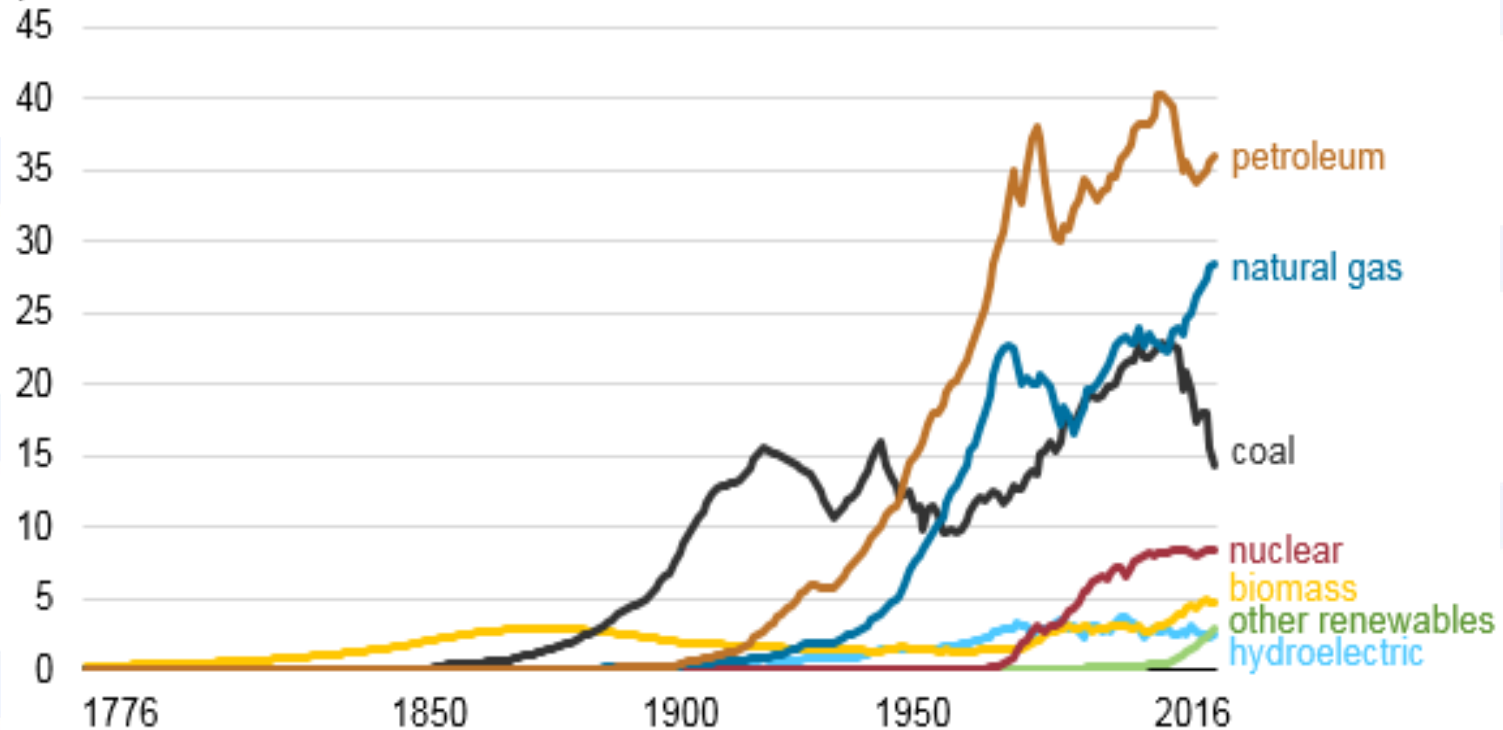
Natural Gas Supply Chain



In the whole supply chain, this is the part we have control over.

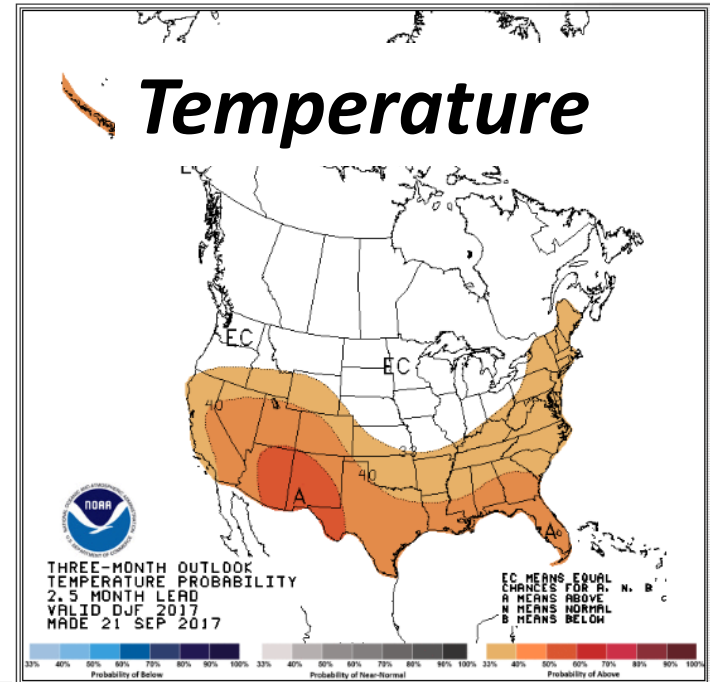
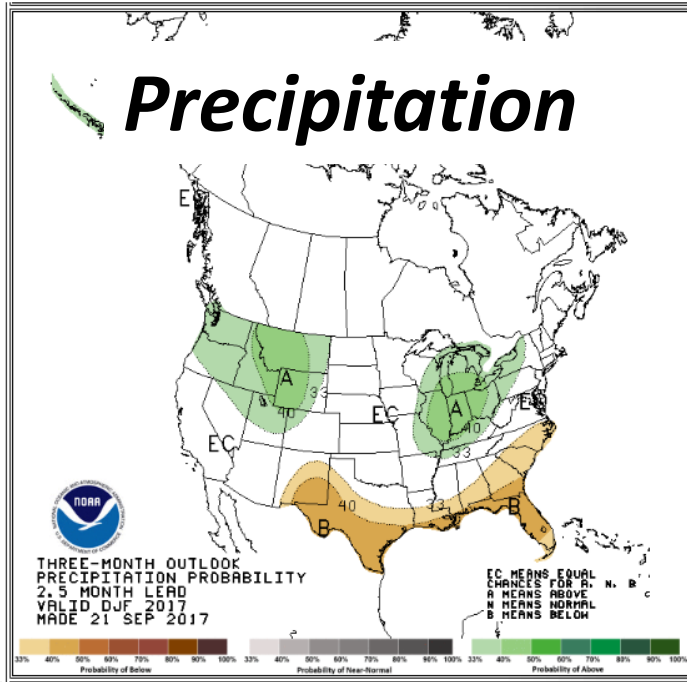
Energy consumption in the United States (1776-2016)

quadrillion British thermal units



Source: U.S. Energy Information Administration, *Monthly Energy Review*

NOAA 2017-2018 Winter Weather Forecast December, January and February



Pipeline Reliability

- Help us keep the gas flowing and in the pipeline.
- The single largest preventable cause of pipeline service interruption is excavation damage.*

Gas Transmission Serious Incident Cause 2005 - 2016

* Time run: 9/26/2017 3:25:52 PM

Data Source: US DOT Pipeline and Hazardous Materials Safety Administration
Data as of **9/25/2017**

Simple Steps to Protect Pipelines

1. Find pipelines near your home or business.
2. Always call 811 before you dig.
3. Know and follow easement restrictions.
4. Report unusual or suspicious activities & unauthorized excavations.



Pipeline Markers



Pipeline markers can look like this.



Pipeline markers are this size.



New Signs Installed

To assist our damage-prevention efforts we posted additional signs on gradable dirt roads that cross our pipeline.

These highly visible signs help road crews and equipment operators know our pipeline is in the road right-of-way.

These signs are in addition to our traditional pipeline marker signage.

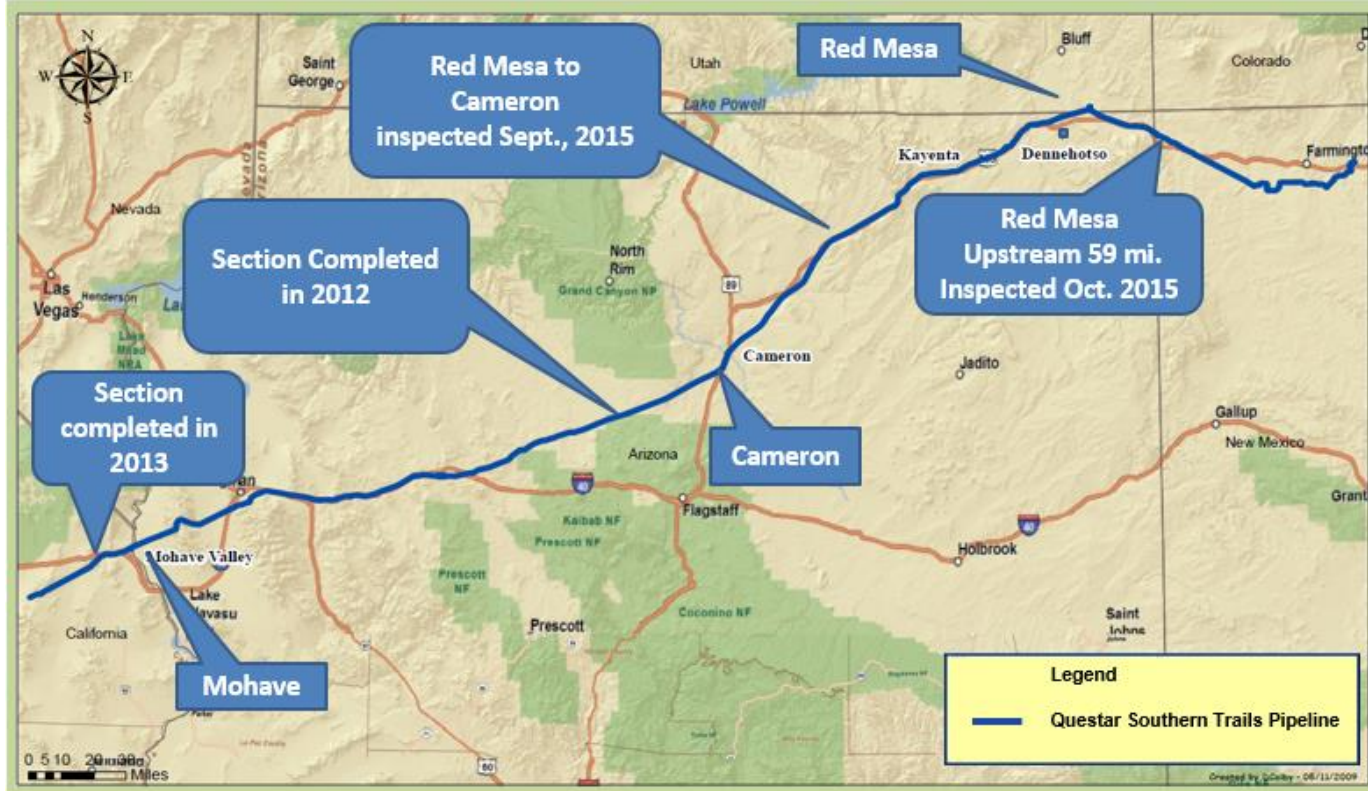


Pipeline Safety Update

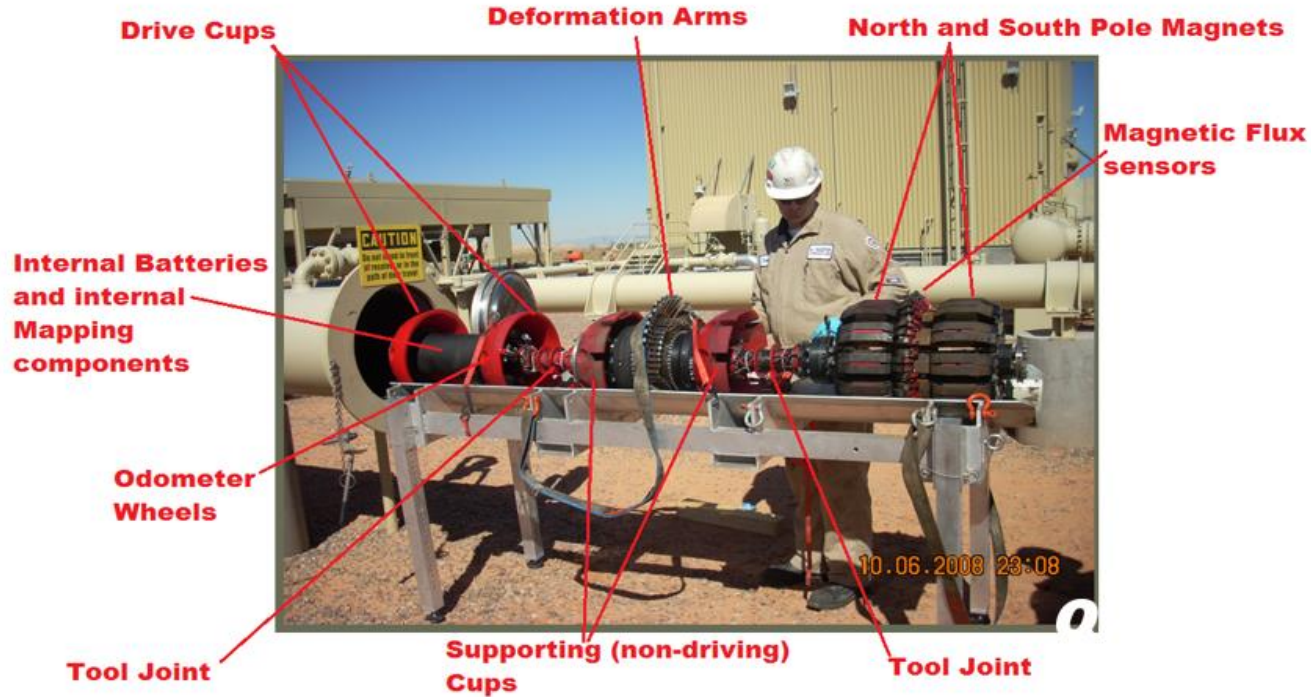
- ✓ *In-Line Inspections*
 - *All QSTP pipe in AZ has been in-line inspected and repaired as necessary*
- ✓ *2017 Arizona Pipeline Safety meetings*
 - *Excavators*
 - *Emergency Responders & Public Officials*
 - *Land Owners/Public*



In-Line Inspection



Preparing to Launch an ILI Tool (a.k.a. “Smart Pig”)



Emergency Plan

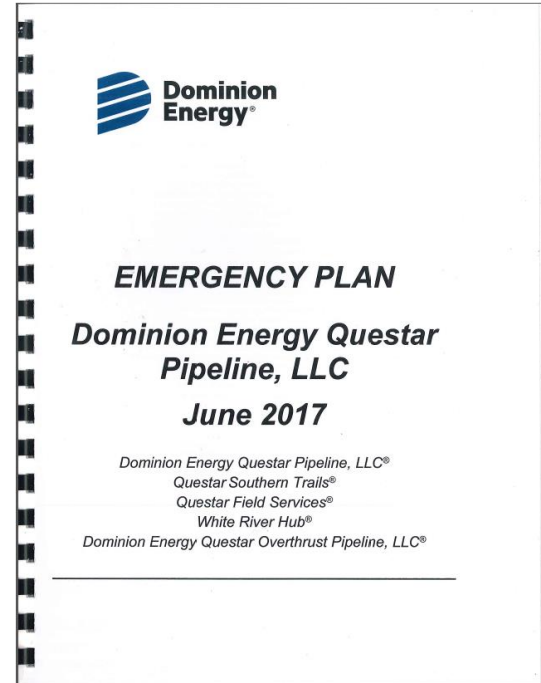
Federal Code:

49 CFR Part 192.615

Requires every pipeline company to have a current Emergency Plan.

Dominion updates and publishes this plan every year.

Each operations employee is trained on every aspect of the plan each year.



Emergency Training Drills

- **Dominion Energy operations employees participate in emergency-training drills throughout the year.**
 - These table-top drills can be:
 - **Internal**, with fellow employees and management, or
 - **External**, with emergency responders and public officials usually through local emergency-planning councils.



2017 QSTP Public Awareness Meetings

Damage Prevention, Emergency Response & Public Awareness Meetings:
Coordinated with Arizona 811, local utilities, transmission companies and
the Arizona Corporation Commission



Purpose of Public Awareness Meetings

- ✓ Inform the public and communities of pipelines in vicinity & their locations
- ✓ Train excavators on Arizona 811 laws, excavation safety, and safe digging practices
- ✓ Make emergency responders and public officials aware of pipelines and high-consequence areas (HCAs) in their jurisdictions
- ✓ Train emergency responders on pipeline emergency and response
- ✓ Review product hazards and characteristics
- ✓ Share pipeline emergency numbers and introduce local pipeline operators to public and responders
- ✓ Define emergency-planning partners -- pipeline operators, police, fire, ambulance, hospitals, LEPC, and public officials

2017 Arizona Emergency Responder and Excavator Awareness Training Meetings - QSTP participation



Pipeline Reliability Summary

INTEGRITY MANAGEMENT

- ✓ Thorough, up-to-date analysis of pipeline integrity
- ✓ Continue “smart pigging” at 7-year intervals (HCA’s)
- ✓ Develop baseline knowledge & track history of known pipeline anomalies
- ✓ Real-time remote monitoring and control of cathodic protection

Public Awareness

- ✓ Provides foundation for incident avoidance through public, excavator, public official and emergency responder communications
- ✓ Share knowledge and promote awareness in local communities

Questions?

