



Docket No. G-00000C-11-0081

*In the Matter of the Commission's Gathering of Information Concerning
Natural Gas Outages in the Southwestern United States*

Jim Cleary

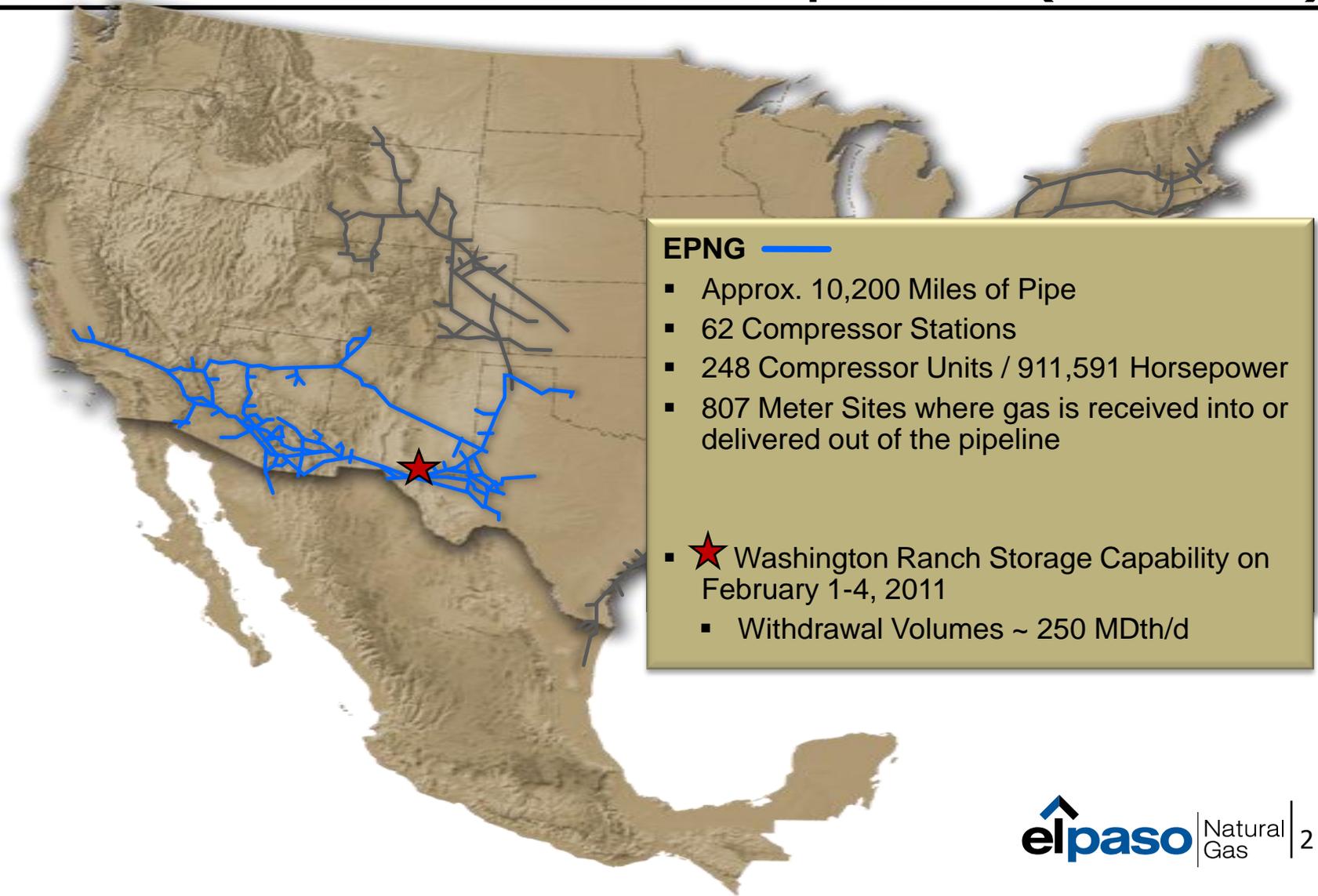
President, El Paso Natural Gas Company

March 2, 2011

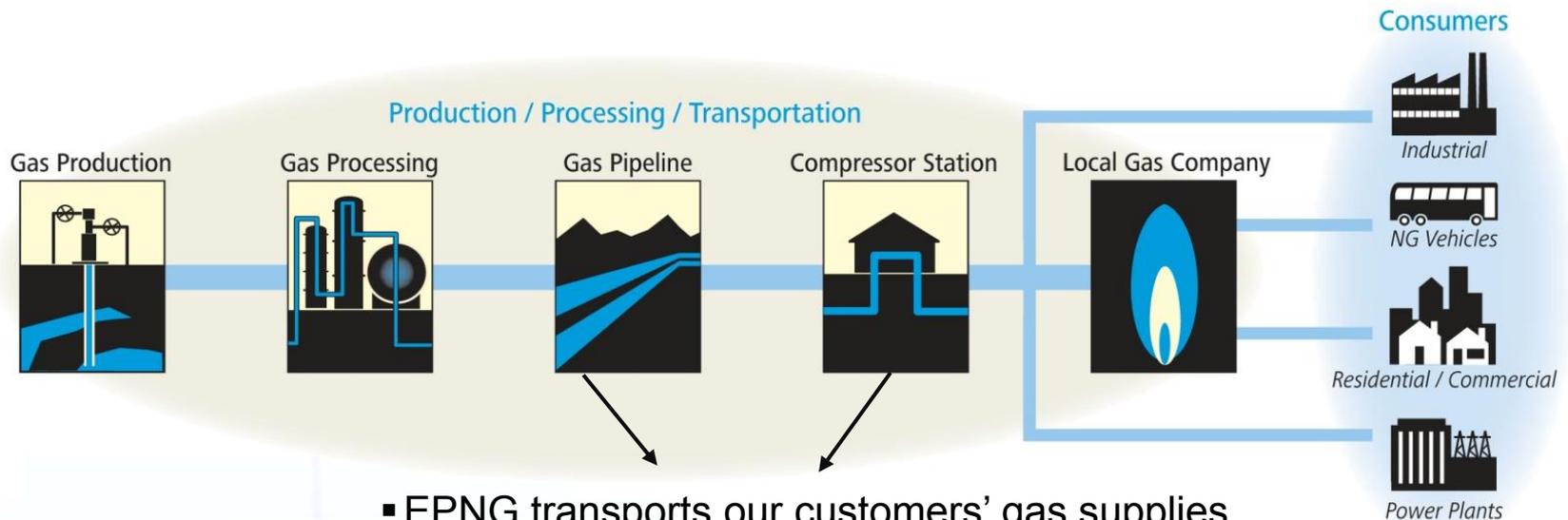


Natural Gas Pipeline System Overview

El Paso Natural Gas Pipeline ("EPNG")



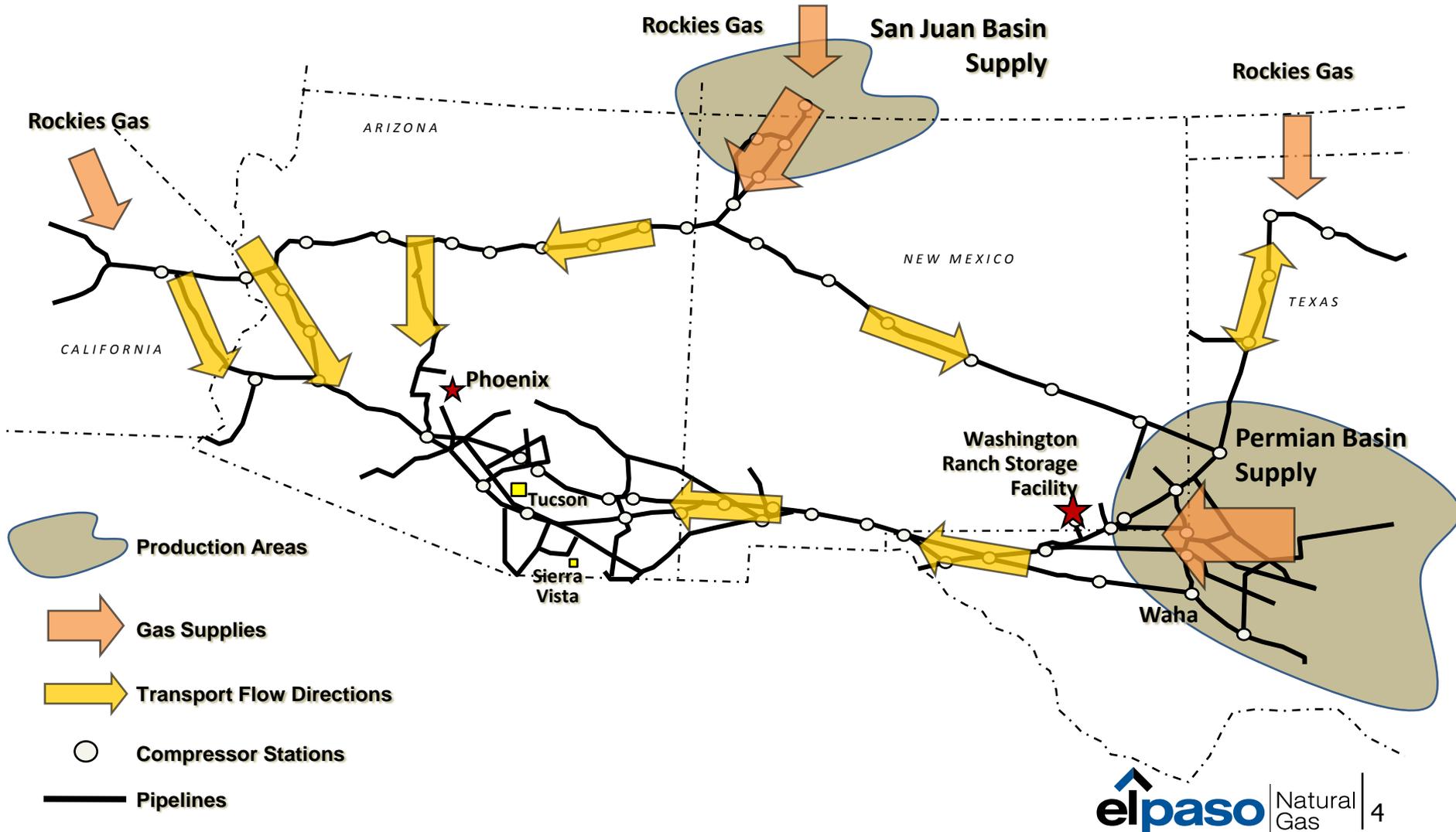
EPNG's Role in the Gas Delivery Chain: Receive, Transport and Deliver



- EPNG transports our customers' gas supplies
- Our customers purchase the gas from other companies who deliver it to the pipeline
- Gas in needs to equal Gas out

El Paso Natural Gas Company System Overview

Supply Locations and Flow Direction



Summary of Causes for Gas Outages in Arizona

- **Widespread cold temperatures**

- Increased the demand for natural gas
- Lead to temporary loss of natural gas production through freeze-offs and equipment issues
- Caused equipment issues at power plants which led to rolling blackouts and greater loss of natural gas supplies
 - Some processing plants and pipeline compressor stations were affected

- **Significantly more gas was taken out of EPNG's pipeline by the customers than was put in by the customers' suppliers**

- This caused pipeline pressures to be lower than normal on EPNG's south mainline starting the afternoon of February 2
- In turn, some customers were unable to distribute the gas to the far ends of their systems at the lower pressures starting early February 3

Demand Vs Supply

January 31 – February 3, 2011

Estimated MDth	Jan 31	Feb 1	Feb 2	Feb 3
DEMAND				
Arizona	804	1,025	1,424	1,294
All Other	2,618	2,726	2,247	2,242
DEMAND TOTAL	3,422	3,751	3,671	3,536
SUPPLY				
Production				
Permian	797	590	315	236
San Juan	1,747	1,688	1,383	1,303
Pipeline Interconnects	721	862	1,345	1,792
SUPPLY TOTAL	3,265	3,140	3,043	3,331
Supply Minus Demand	-157	-611	-628	-205
System Balance				
Washington Ranch Support	139	250	249	249
Adverse System Impact	-18	-361	-379	44

EPNG's Response

- EPNG staffed critical compressor stations 24 hours/day during this period
- EPNG stayed in constant communication with customers through its web site, gas control team, scheduling team, field operations, and various customer service representatives
- Washington Ranch stayed on maximum withdrawal throughout the period to offset the lost of customers' supplies
- EPNG used its linepack to hold up deliveries as long as possible but supply was not replenished by the customers' suppliers quickly enough
- EPNG delivered all of the natural gas it received from the customers' suppliers plus another 15-20% from linepack and storage
 - Pipeline capacity was sufficient

Use of Lessons Learned to Improve the Future

- Determine improvements to EPNG's communication process
- Promote better integration with the electric sector to include natural gas equipment on their critical infrastructure list
- Conduct a mock emergency with customers and producers/plants utilizing the recent scenario to identify improvements in procedures and communication plans
- Review winter preparedness plans
- Review facility performance
 - With affected customers
 - Assess asset enhancements in light of new temperature parameters
 - Re-evaluate storage expansions with customers

Natural Gas Storage

Copper Eagle

Working Storage	9.6 Bcf
Daily Withdrawal Rate	960 MMcf/d
Daily Injection Rate	440 MMcf/d

Washington Ranch

	Today	Expansion
Working Storage	44 Bcf	Same
Effective Withdrawal Rate	250 MMcf/d	350 MMcf/d
Effective Injection Capacity	150 MMcf/d	210 MMcf/d

Arizona Gas Storage

Working Storage	2.0 Bcf
Daily Withdrawal Rate	400 MMcf/d
Daily Injection Rate	200 MMcf/d

NEW MEXICO

ARIZONA

Washington Ranch

- ★ Operational today but could expand
- ★ Past development efforts