



El Paso Natural Gas Pipeline Summer 2014 Energy Preparedness

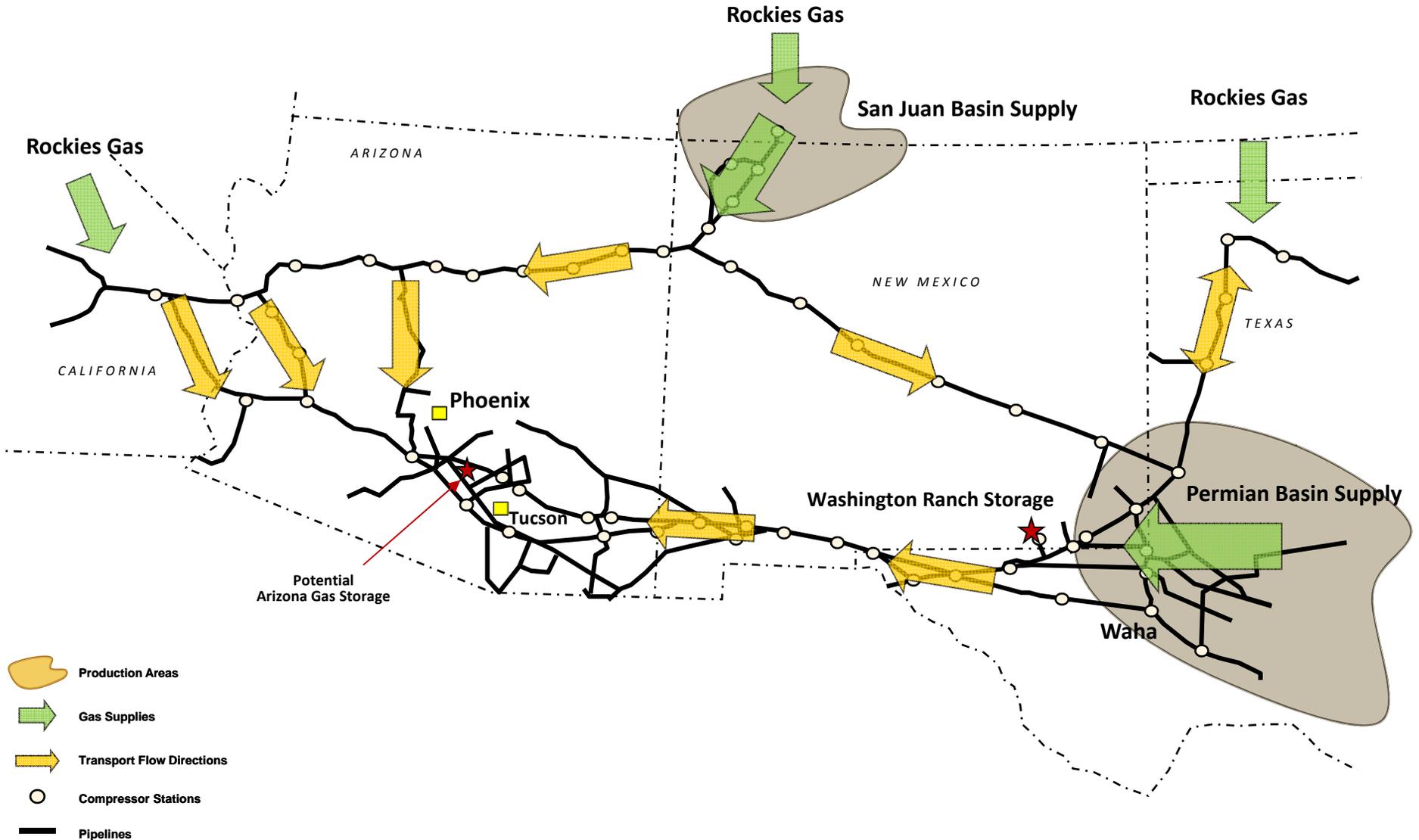
Presentation to the Arizona Corporation Commission

April 10, 2014

Kevin Johnson, Director, Western Region Gas Pipeline Management (EPNG/Mojave)

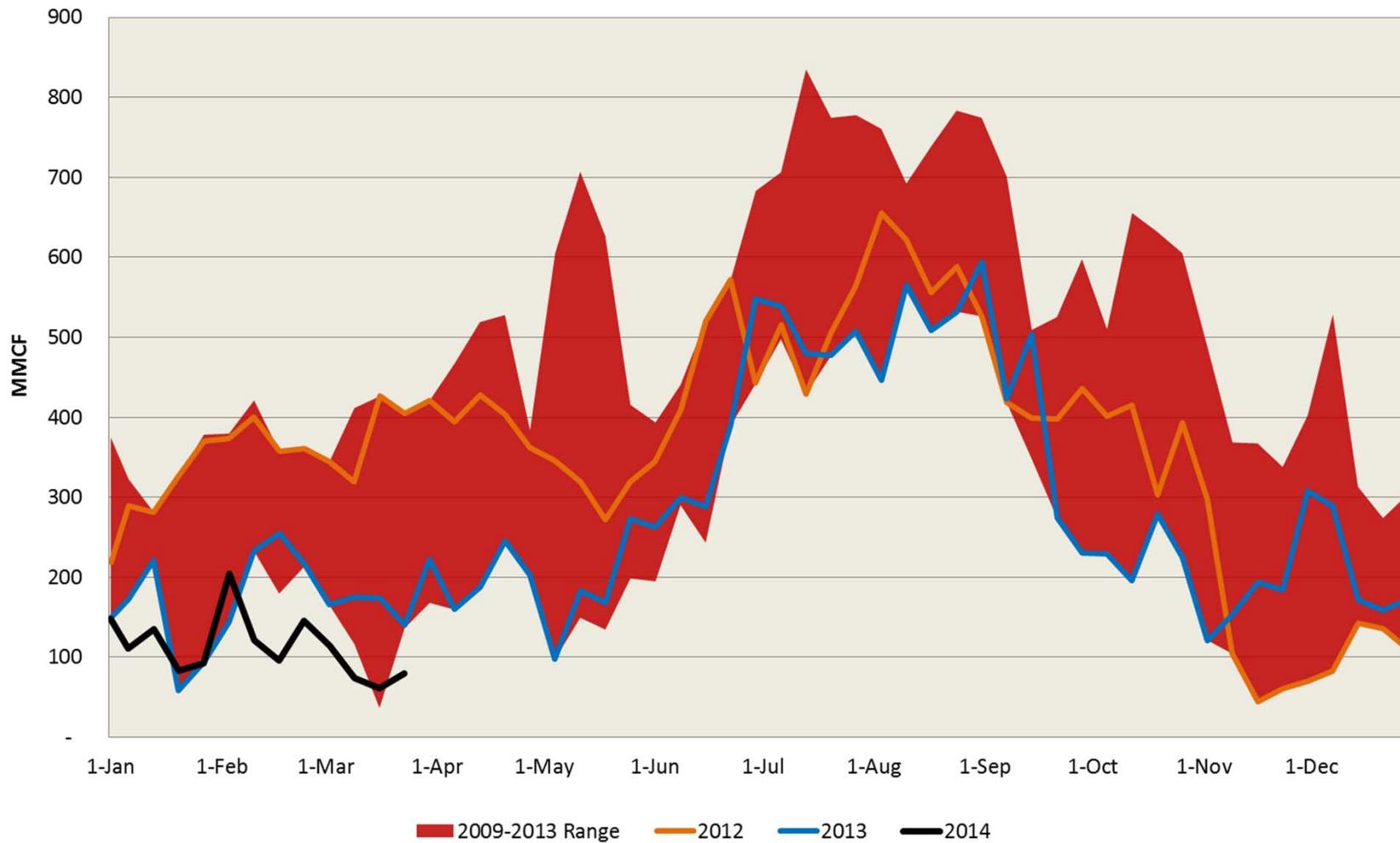
EPNG System Overview

Supply Locations and Flow Direction

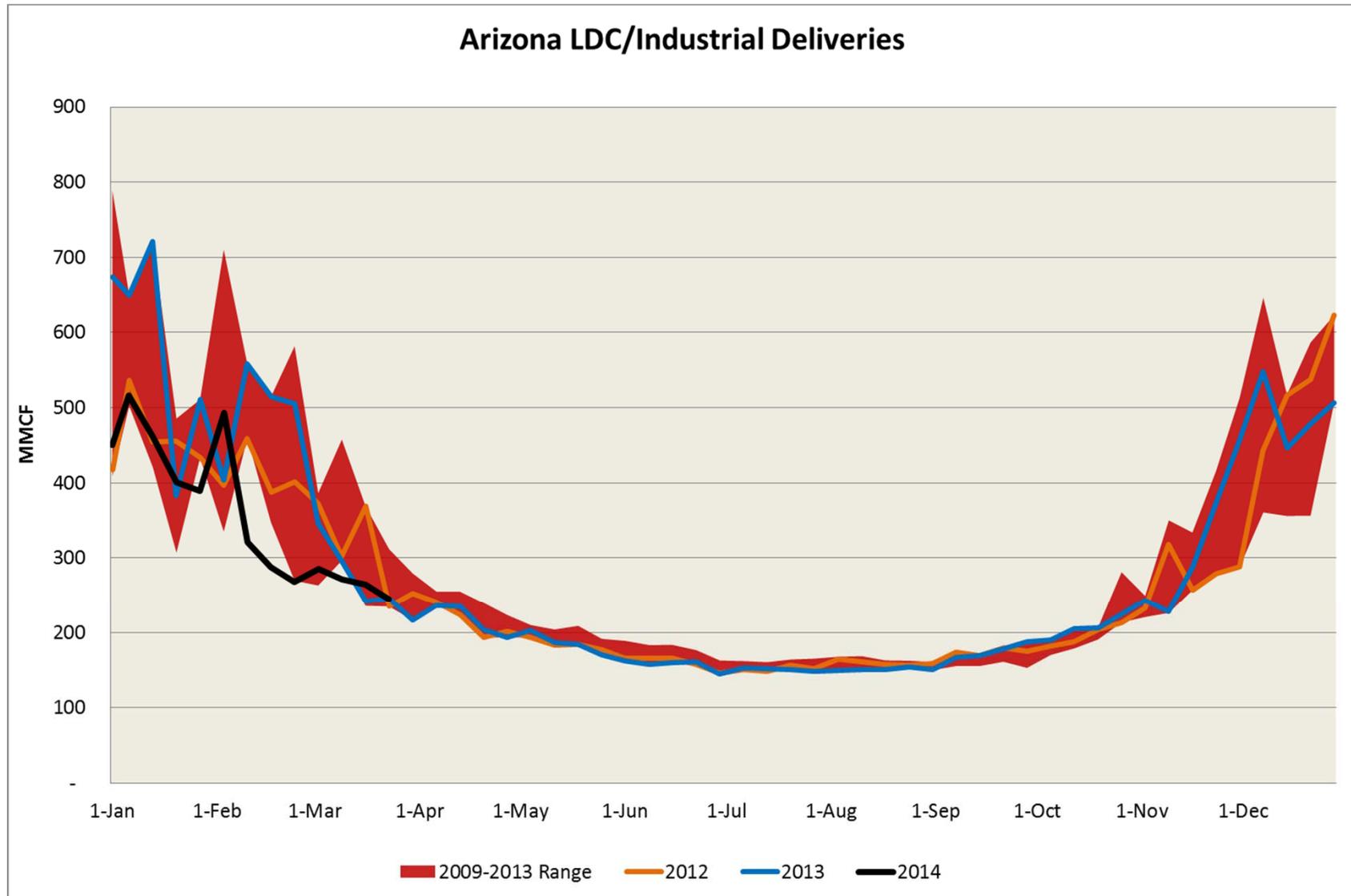


EPNG Throughput Arizona Power Generation

Arizona Power Generation Deliveries



EPNG Throughput Arizona LDC/Industrial



Gas-Electric Interdependency

Operational Impacts

- Primary Impact to Pipeline
 - Linepack (linepack management)
 - Pressure Impacts on Pipeline
 - Purchase Power loss at compressor stations and associated impact to ancillary equipment
 - **PRIMARY CONCERN** - Impacts to gas supply as a result of the electrical loss at production and processing facilities
- Factors that influence the severity of the impact
 - Forewarning - Ability to Plan vs. Unexpected Outage
 - Duration of Outage
 - Seasonal Effects (winter vs. summer)

Gas-Electric Interdependency Communications

- Shipper and Stakeholder Mass Communication
 - EBB Notices
 - Text messages
 - Emails to shipper-maintained group email addresses
 - Telephone message sent by EPNG to emergency contacts
 - Operations Hotline (1-800 #) parties can call for a recorded status of the system (updated as needed throughout an event)
- Shipper-Specific Communications
- Western Electricity Coordinating Council (WECC)
- California ISO

Gas-Electric Interdependency Reliability

- Collaboration/Coordination
 - Shipper-Specific Coordination
 - Industry Collaboration and Coordination
 - Interstate Natural Gas Association of America (INGAA)
 - Desert Southwest Pipeline Stakeholder (DSPS) group
 - Western Interstate Energy Board - Western Gas-Electric Study
- Kinder Morgan (EPNG) has established good working relationships with its interconnected pipelines which provides additional flexibility in responding to emergency situations.
- Kinder Morgan has offered and continues to offer an Arizona gas storage project which would greatly enhance overall system reliability with regards to supply impact associated with electrical loss at production and processing facilities.