

# Arizona Public Service Company 2014 Summer Readiness

Before the Arizona Corporation Commission  
April 10, 2014



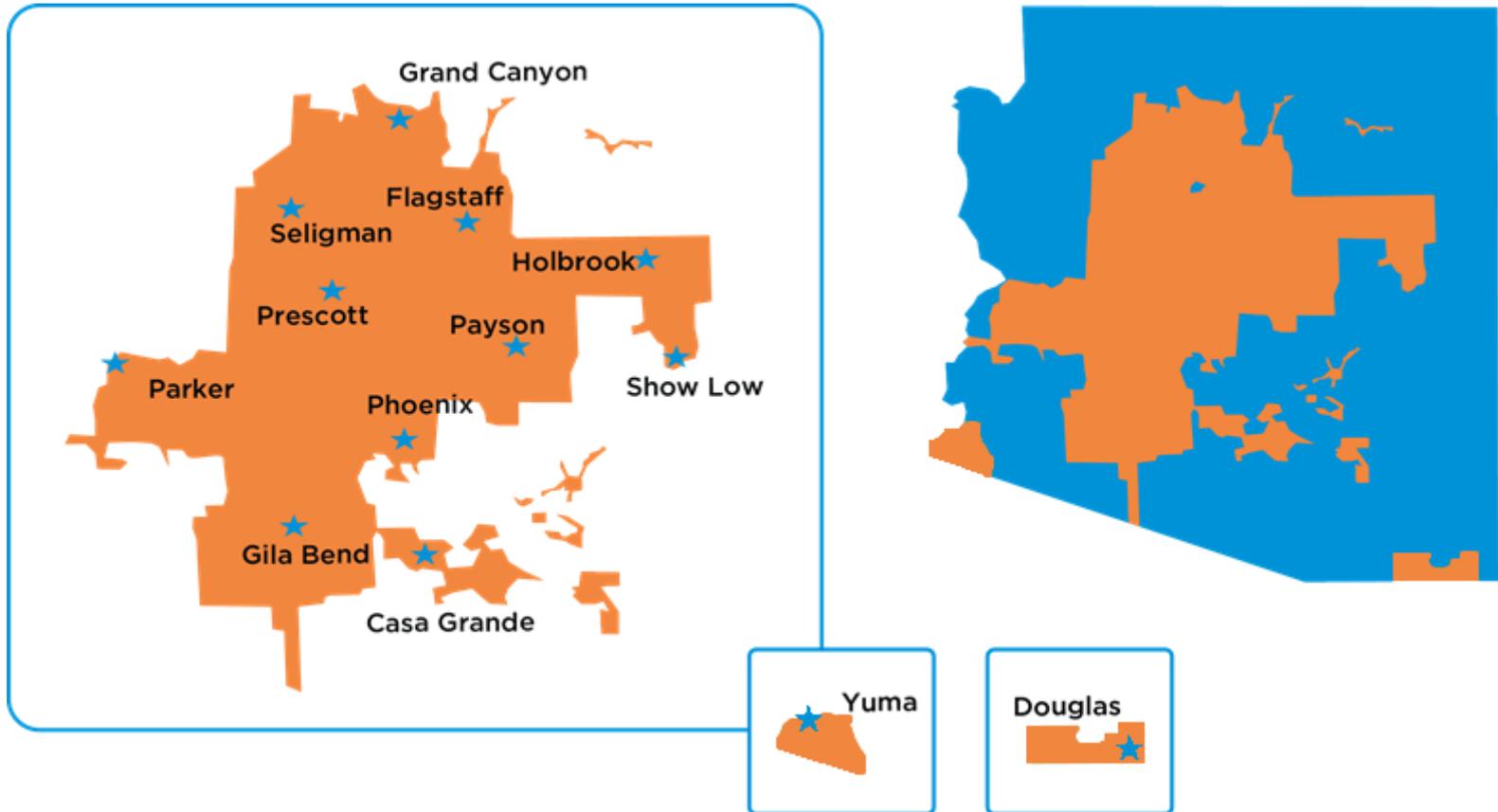
# Presenters

- **Jim Wilde**  
Director: Resource Planning
- **Jacob Tetlow**  
General Manager: Transmission and  
Distribution Operations Maintenance

# Agenda

- Loads and Resources
- Fuel Supplies
- Planned Maintenance Activities
- Emergency Preparedness & Customer Outreach
- Conclusions

# APS Service Territory



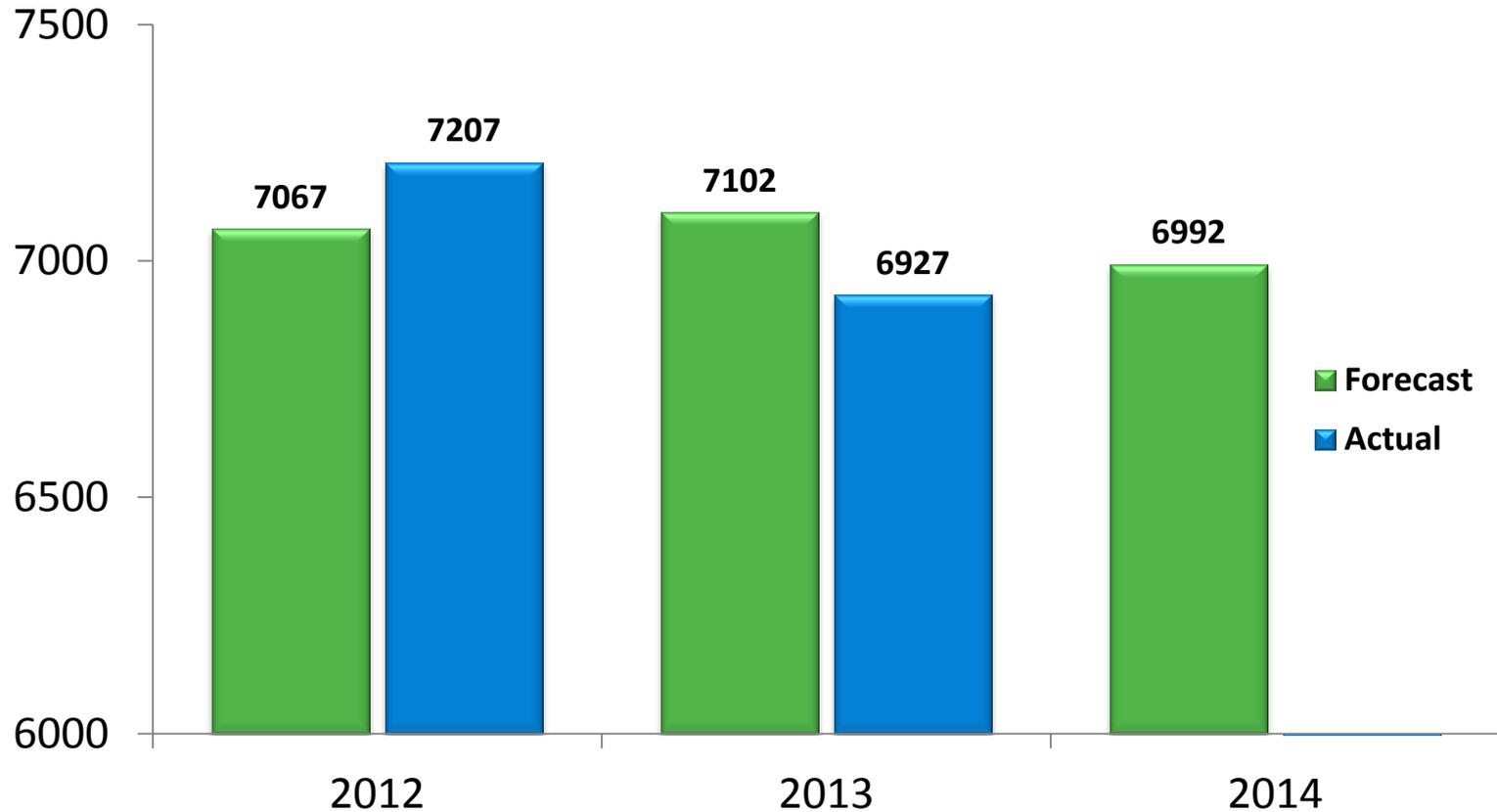
# APS Service Statistics

- 11 counties
- 34,646 square miles CC&N area
- 1.2 million customers
- 424 substations
- 29,157 distribution line miles
- 5,908 transmission line miles
- 63 generation units

# 2014 Total Generation Resources

<b>Fuel Source</b>	<b>Capacity at Peak (MW)</b>
Nuclear	1,146
Coal	1,932
Gas Combined Cycle	1,898
Gas/Oil CT, Steam	1,253
Long-Term Contracts	2,481
Renewables (nameplate 753 MW)	476
Total	<hr/> 9,186

# APS System Peak Demand

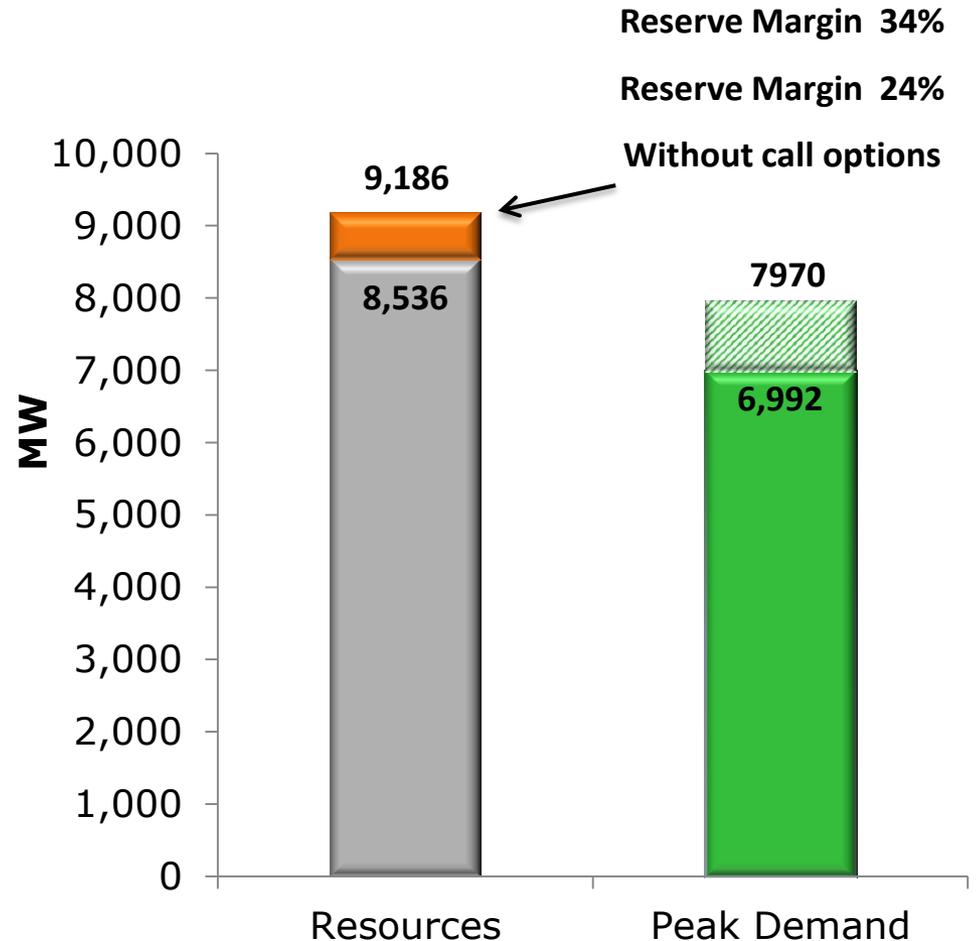


Note: 2014 forecast includes 763 MW of existing customer resources

# 2014 Peak Generation Resources and Demand

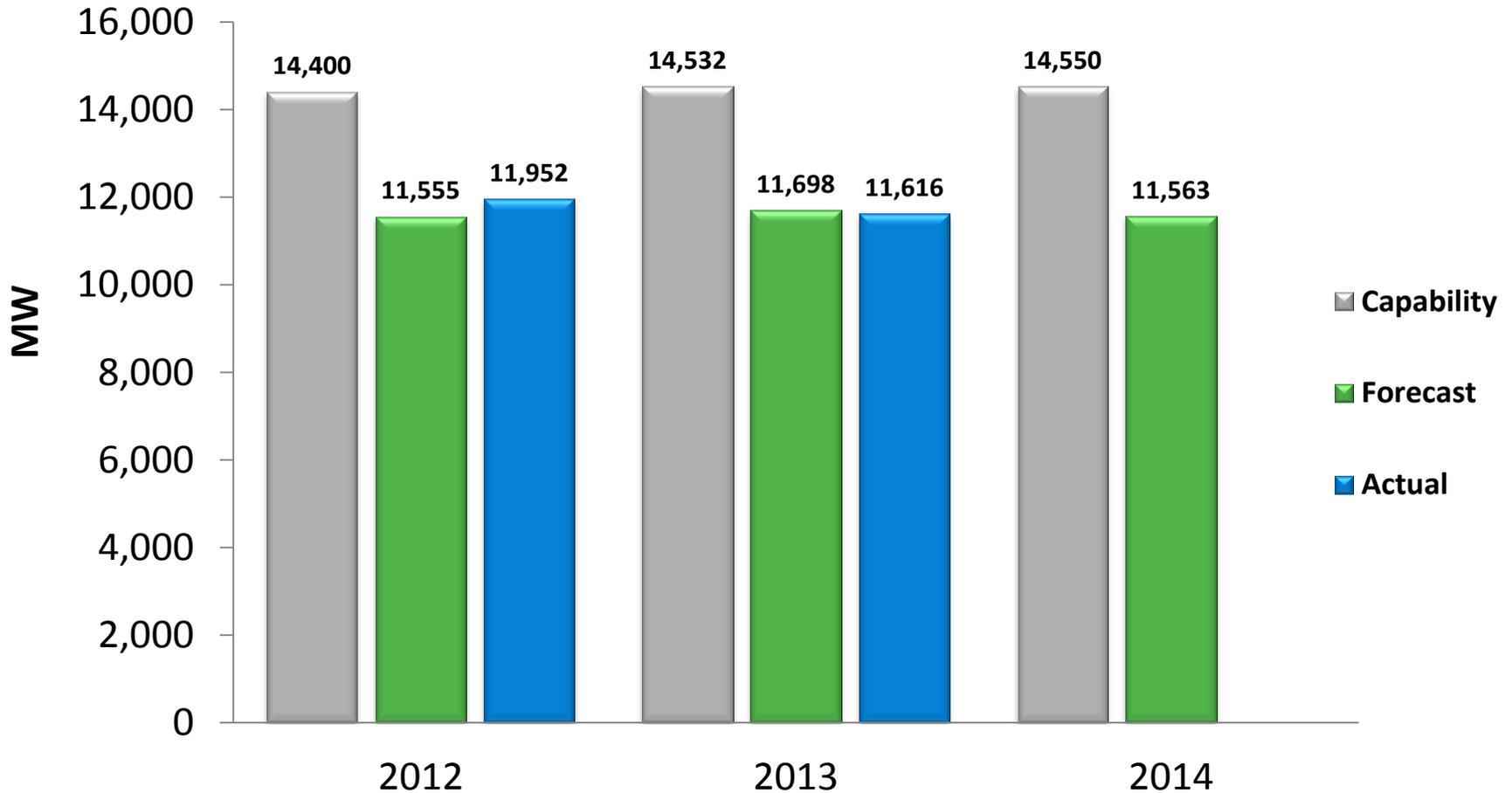
## Planned reserve margin to manage uncertainties

- Load forecast uncertainties (weather, economy)
- Unplanned unit outages
- Varying levels of customer participation in mandated programs

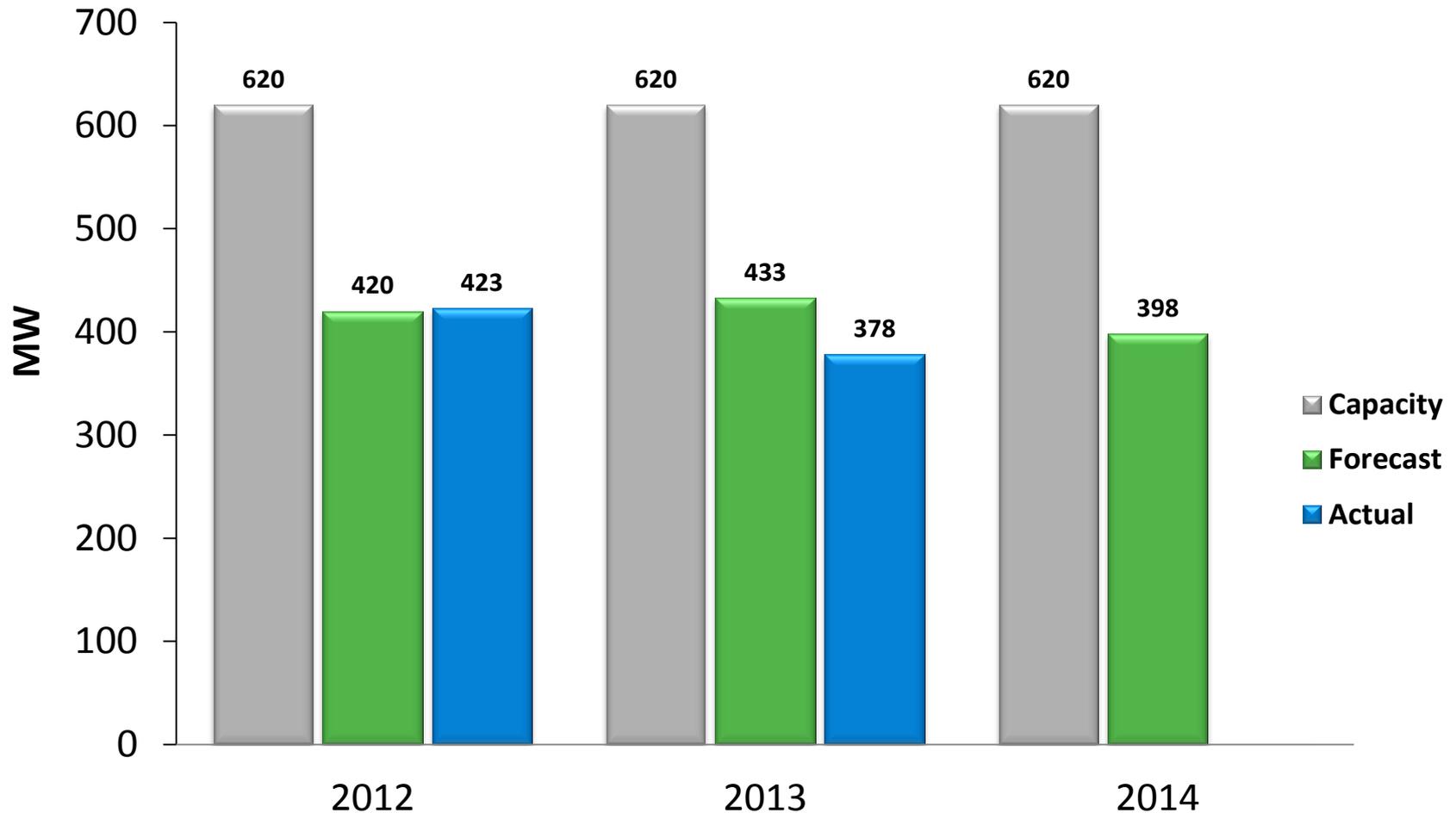


Current minimum reserve margin is 15%, or 978 MW

# APS/SRP Valley Maximum Load Serving Capability

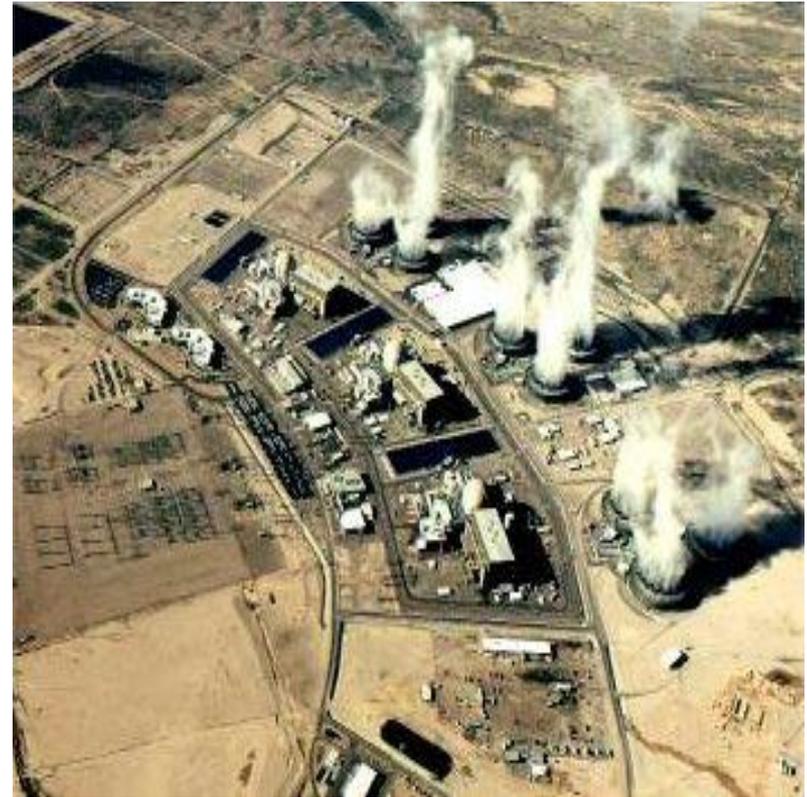


# Yuma Area Maximum Load Serving Capability



# Nuclear: Palo Verde

- Fuel sourced from multiple suppliers
- 100% of 2014 fuel in pipeline
  - Spring Outage, all fuel is on site
  - Fall Outage, all fuel components procured, fabrication on normal schedule
- 100% of fuel requirements contracted through 2017
- Overall station capacity factor at 91.1% in 2013



# Coal Supply

## Four Corners Power Plant

- Mine-mouth plant with NTEC  
– Term through 2031
- BHP is mining contractor through 2016
- 120 days of reserves



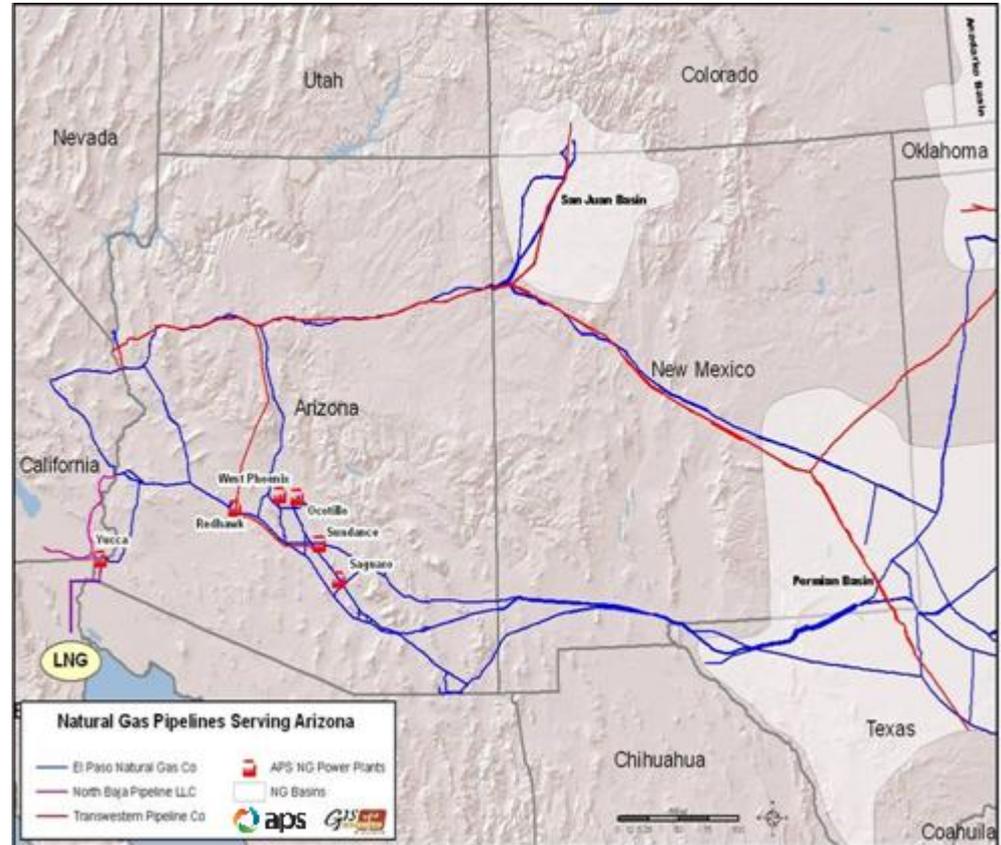
## Cholla Power Plant

- Fuel Source: El Segundo mine near Grants, NM
- Contract commitments in place through 2024
- 60-70 days of reserves



# Natural Gas Supply

- APS has sufficient pipeline transportation and supply under contract to meet peak system needs
- El Paso Natural Gas supplies all APS natural gas plants
- Transwestern pipeline also supplies the APS Redhawk and Sundance power plants
- North Baja pipeline also supplies Yucca units 5 & 6
- Gas storage arrangement in West Texas contracted through May of 2015 connecting to both El Paso and TransWestern Pipelines





# Planned Reliability Activities

- Transmission / Distribution Operations & Maintenance:
  - Substation health monitoring – critical assets
  - Substation, predictive & preventative maintenance initiatives
  - Annual transmission and distribution line patrols
  - Improved situational awareness of the transmission grid within western interconnect

# Vegetation Management Activities

- Vegetation Management Program
  - Patrol transmission & distribution right of way
  - APS was the first utility to receive right of way stewardship accreditation for integrated vegetation management
- Wildfire Planning
  - Annual wildfire academy pre-wildfire season meetings with five national forests
  - Strategic deployment of new devices and technologies in high fire risk areas

# Emergency Preparedness & Response

- Coordination & Communications with Emergency Managers
  - AZ Dept of Emergency Management, county & municipal emergency managers, & public safety personnel
  - Cross Industry Partners: SRP, TEP, Southwest Gas
- Planning & Training Exercises
  - Statewide exercises and mock drills
  - 2013 Statewide Emergency Exercise
  - Incident Command Coordination & Training
  - Tours of critical facilities

# Substation Security Update

- Long established plans in place to protect important facilities
- Working with other utilities, coordinating agencies, regulators and law enforcement to effectively respond to any threats or potential threats
- Plans in place to re-route power as needed during unplanned events

# APS Customer Outreach

- Targeted communications for customers, emergency managers & public safety personnel, and community leaders
- Coordination with local emergency management organizations to establish temporary shelters and/or provide outreach for vulnerable populations (need for shelters determined by local emergency managers)
- Purchase or reimburse of dry ice and/or bagged ice (for residential customers' refrigerators and freezers)
- Medical Care Preparedness Program (life support/medical monitoring)

# APS Customer Outage Information Sources

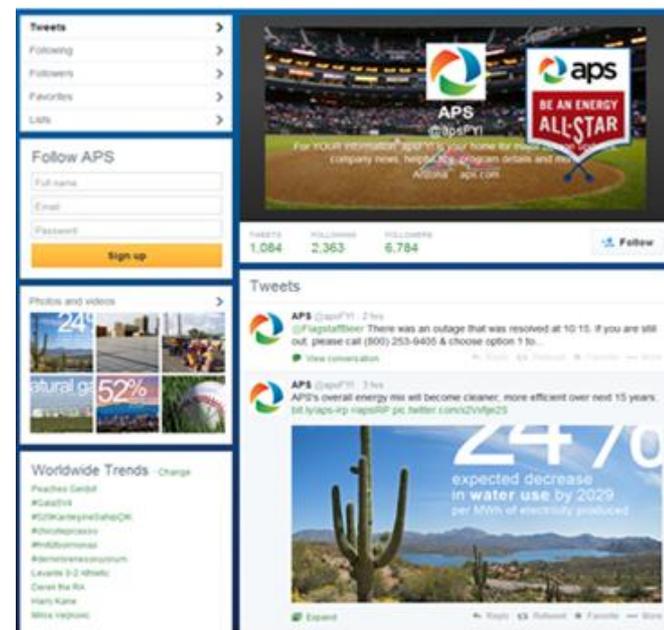
- Call Center staffed with live agents 24hrs, 7 days/week
  - Automated, up-front recorded outage messages updated regularly
  - Outbound customer calls when power is restored
- News media
  - APS media hotline monitored 24hrs, 7 days/week
  - Access to Arizona DPS media alert system

# Social Media

- Facebook & Twitter
  - ETR's (estimated time of restoration)
  - General area affected
  - Outage cause – if and when known

<https://www.facebook.com/apsfyi>

@apsFYI



# Summary

- Generation resources, fuel supplies and transmission capacity in place to meet customer demand and reserve requirements
- Maintenance efforts on track
- On going coordination, integration with external emergency planners
- Strong customer communication channels in place