

# Arizona Corporation Commission Fifth Biennial Transmission Assessment

Decision 70635  
Docket E-00000D-07-0376

Special Open Meeting  
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## SRP Top Renewable Transmission Projects

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# Overview

- Criteria
- SRP's Top 3 RTPs
- SRP's Future RTPs
- Policy Issues

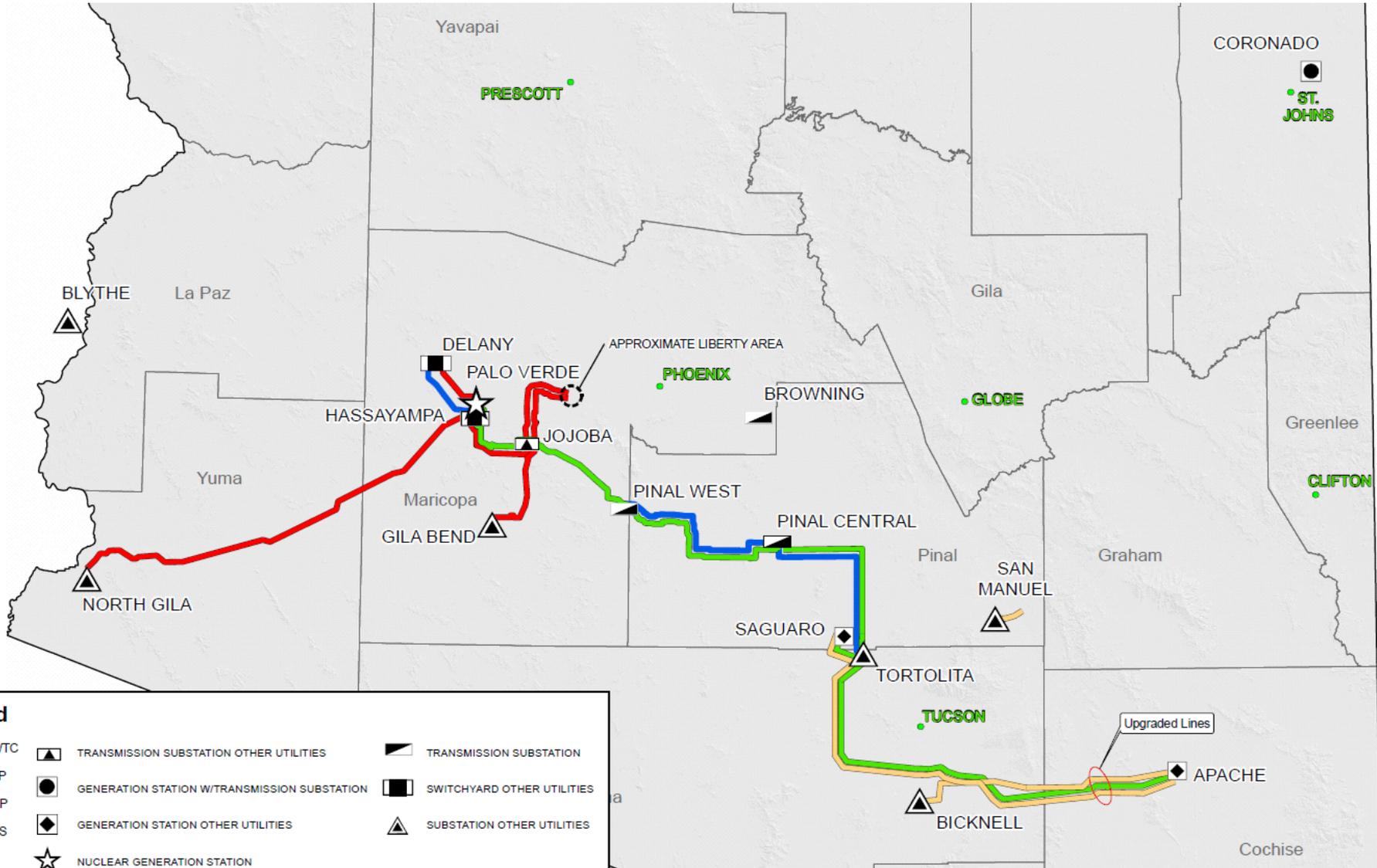
# Criteria for the RTPs

1. Proximity to Renewable Resources
2. Meeting SRP's long term needs
3. The project's ability to provide renewable resources and to serve multiple purposes
4. Access multiple resources, resource dense areas or energy hubs
5. Relative cost and schedule
6. Distance from SRP's service territory
7. Integration into local transmission system
8. The project's ability to align partnerships
9. Permitting issues
10. Enhancing system reliability

# SRP's Top 3 RTPs

- Pinal West – Pinal Central (2014)
- Pinal Central – Tortolita (2014)
- Delaney – Palo Verde (2014)

### ARIZONA UTILITIES TOP THREE RENEWABLE TRANSMISSION PROJECTS



**Legend**

SWTC	TRANSMISSION SUBSTATION OTHER UTILITIES	TRANSMISSION SUBSTATION
TEP	GENERATION STATION W/TRANSMISSION SUBSTATION	SWITCHYARD OTHER UTILITIES
SRP	GENERATION STATION OTHER UTILITIES	SUBSTATION OTHER UTILITIES
APS	NUCLEAR GENERATION STATION	

DATE: 11/18/2009

# Pinal West - Pinal Central (2014)

- Certificated (ACC Decisions 68093 and 68291)
- Relatively short transmission - 50 miles
- 3500MW of renewable interconnection requests (all solar)
- Resource development opportunities for Palo Verde, Jojoba, and Pinal Central area
- Increases transfer capability of Palo Verde East
- Increases load serving capability of metro Phoenix area
- Increases access to Palo Verde hub
- Joint participant project

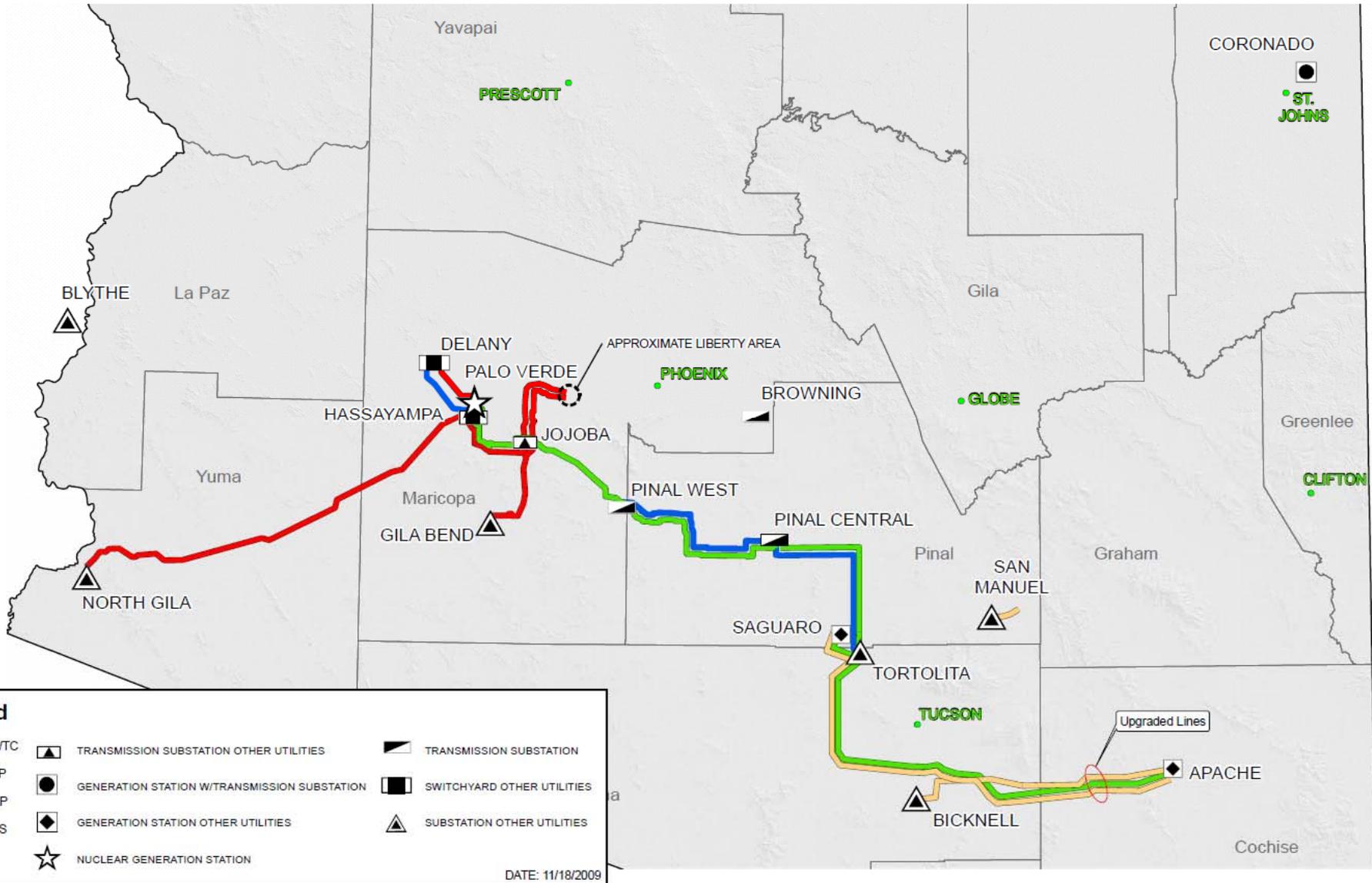
# Pinal Central - Tortolita (2014)

- Under development (TEP plans to file for CEC)
- Relatively short transmission – 30 miles
- Development of renewables (solar and biomass) between Phoenix & Tucson
- 500 MW of interconnection requests (all solar)
- Resource development opportunities for Pinal Central, Tortolita, and Pinal County area
- Provides additional reliability for SRP and others' transmission systems in central Arizona
- Joint participant project

# Delaney - Palo Verde (2014)

- Certificated (ACC Decision 68063)
- Short transmission - 18 miles
- 3300MW of renewable interconnection requests (all solar)
- Resource development opportunities for area west of Palo Verde
- Joint participant project
- Part of the Palo Verde to Sun Valley to Morgan transmission project
- Potential for part of the Palo Verde to Blythe transmission project

# ARIZONA UTILITIES TOP THREE RENEWABLE TRANSMISSION PROJECTS



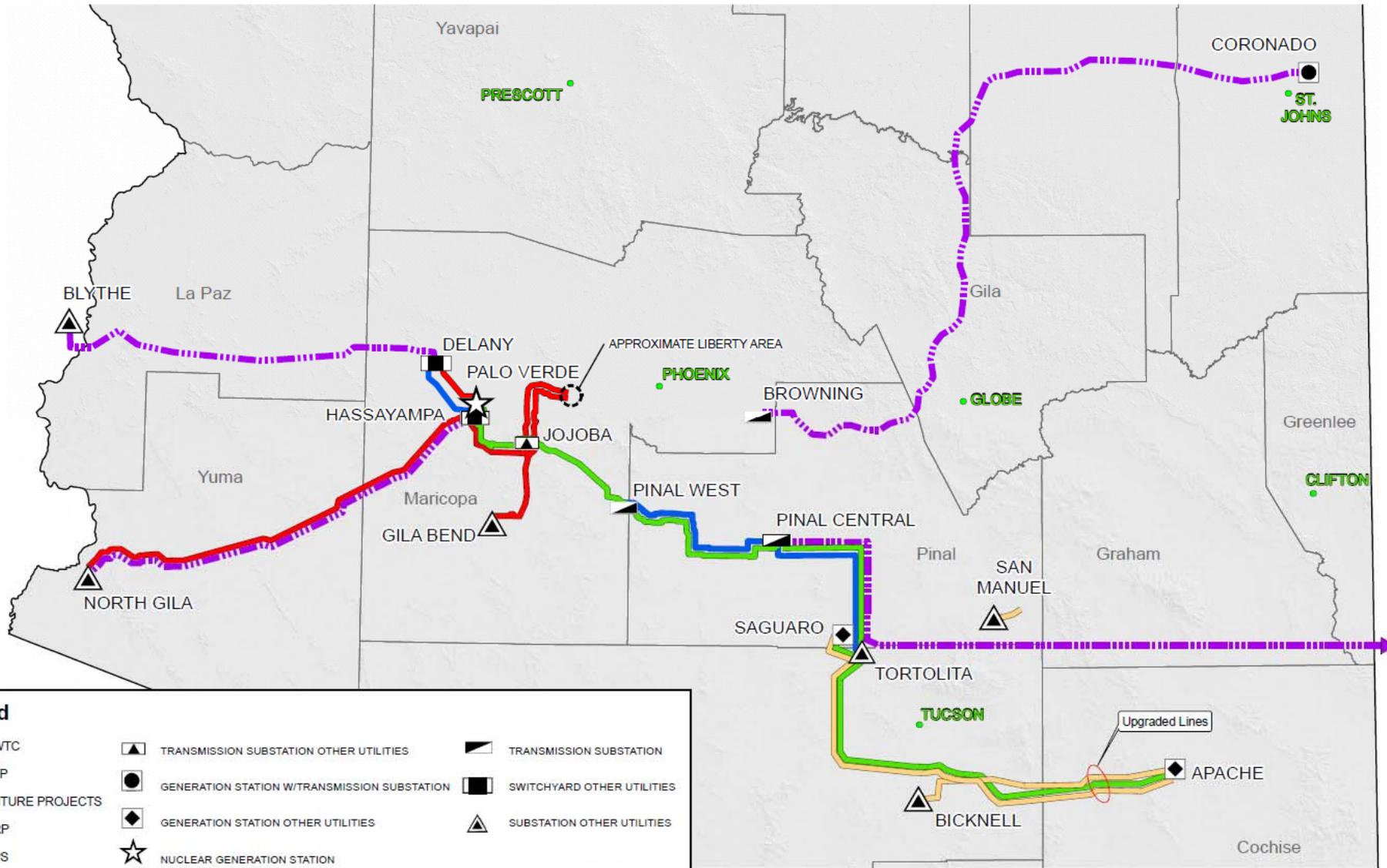
# SRP's Future Projects

- **Palo Verde – North Gila #2**
  - Certificated (ACC Decision 70127)
  - Potential solar capability
  - Access to geothermal resources
  - Potential export to California markets
  - Joint participant project
  
- **Valley to Coronado**
  - Provide additional access to wind and solar in northeastern Arizona
  - Relatively long line
  - Reinforce area of highly used transmission
  - Identified in needs with Department of Energy
  - No project proponent/developer

# SRP's Future Projects

- **Sun Zia Southwest Transmission Project**
  - Long transmission - 460 miles
  - Significant solar, wind and geothermal opportunities
  - Increased transfer capacity between Arizona and New Mexico
  - Joint participant project
  
- **Palo Verde – Blythe**
  - Relatively long transmission
  - Opportunity to connect California transmission
  - Significant solar development opportunity in western Arizona
  - Accessibility to solar resources by Arizona and California
  - No project proponent/developer

### ARIZONA UTILITIES TOP THREE RENEWABLE AND FUTURE TRANSMISSION PROJECTS



**Legend**

SWTC	TRANSMISSION SUBSTATION OTHER UTILITIES	TRANSMISSION SUBSTATION
TEP	GENERATION STATION W/TRANSMISSION SUBSTATION	SWITCHYARD OTHER UTILITIES
FUTURE PROJECTS	GENERATION STATION OTHER UTILITIES	SUBSTATION OTHER UTILITIES
SRP	NUCLEAR GENERATION STATION	
APS		

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# Policy Issues

## Definition of “Renewable Transmission Projects”

- Support definition in RTTF Finance Subcommittee Final Report
- Must be broadly defined
- Prevent discrimination among types of generation
- Avoid the use of specific capacity or energy-hours targets for transmission

# Policy Issues

## Need for collaboration

- Collaboration between resource developers, utilities, towns, counties, federal and state agencies is important
- Coordination amongst resource and transmission providers will assist in achieving PPAs (Power Purchase Agreements) or long-term TSAs (Transmission Service Agreements)
- Joint ownership will allow for development of transmission projects for multiple purposes, higher utilization and management of risks

# Policy Issues

## Modifications to Certificates of Environmental Compatibility (CEC)

- Longer terms for CECs (minimum 10 year, up to 20 year terms)
  - Reduce time frame difference in development between transmission and renewable resources
  - Provide certainty to renewable energy financing
  - Provide certainty to renewable energy development process
- Broader definition of “Need”
  - Expand to include the need for non-carbon emitting resources to meet renewable energy mandates
  - Change focus from connection of specific projects to access to renewable resource area

# Questions?

## Contact Information

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