

Arizona Corporation Commission 2010 Biennial Transmission Assessment Workshop

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SRP Top Renewable Transmission Projects

Brian K. Keel
Manager, Transmission System Planning
Salt River Project

Overview

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

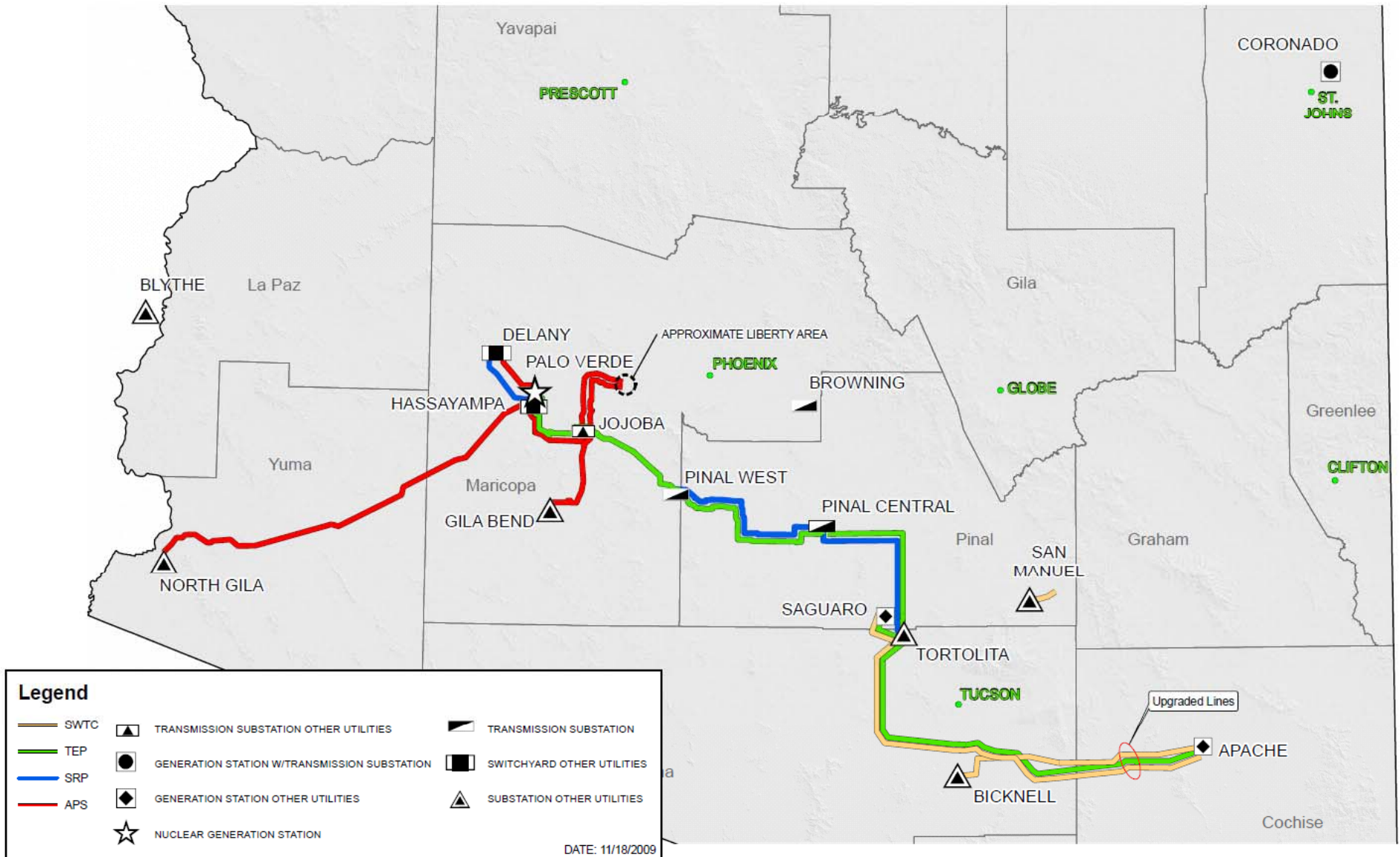
Criteria for the RTPs

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 & generation 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 (2012)

ARIZONA UTILITIES TOP THREE RENEWABLE TRANSMISSION PROJECTS



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

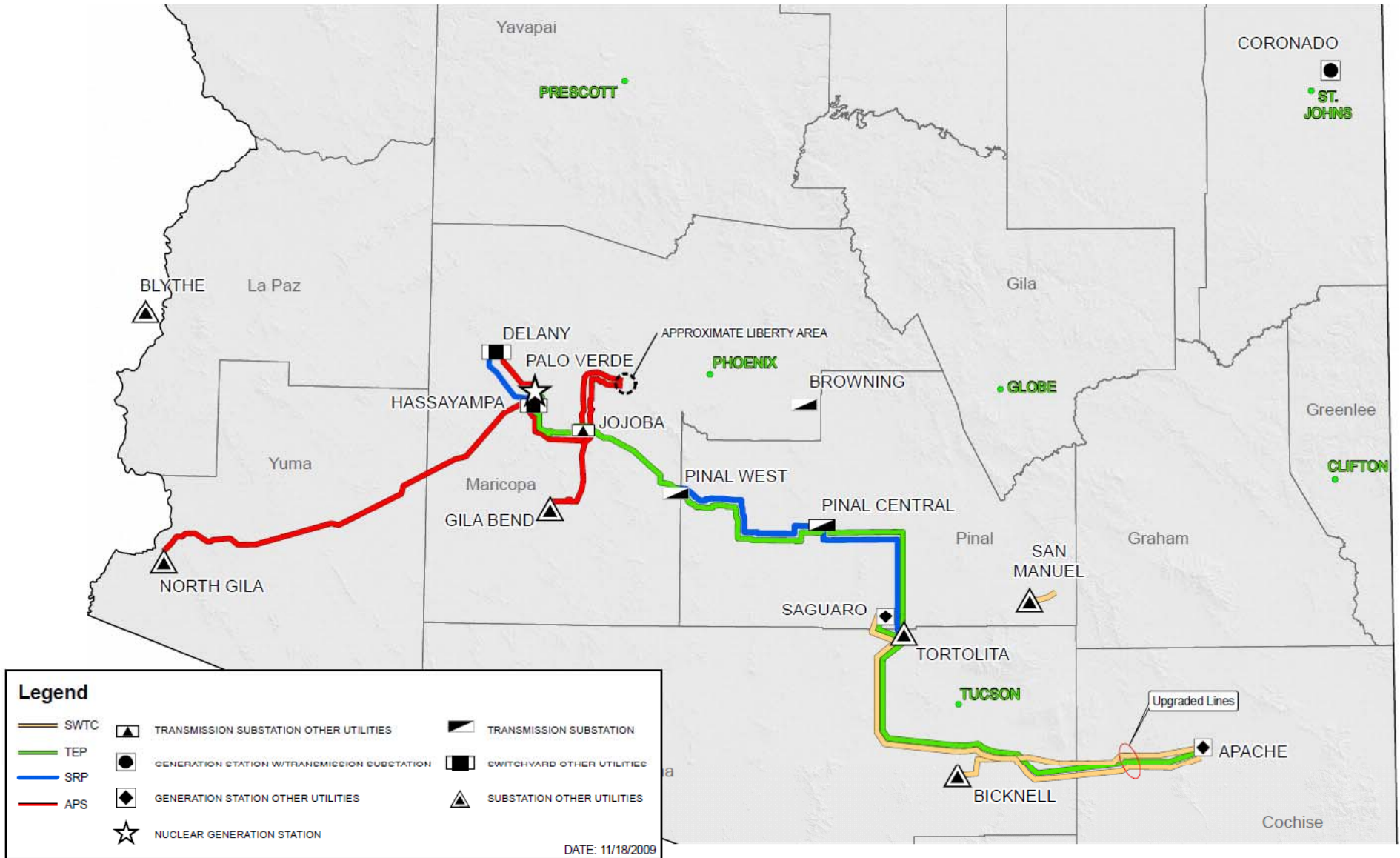
Pinal Central - Tortolita (2014)

- 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 (2012)

- 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

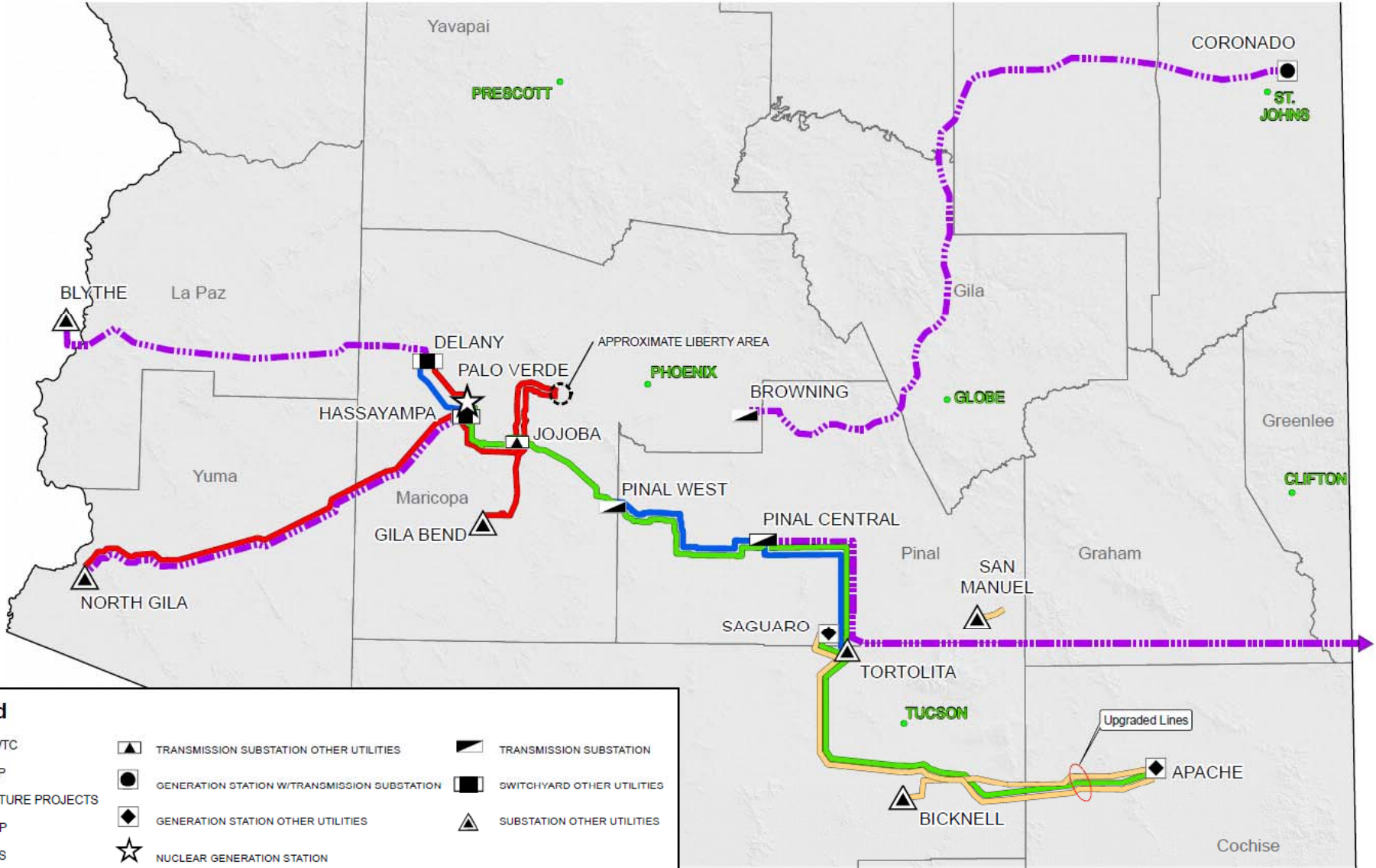
- Palo Verde – North Gila #2
 - Certificated (ACC Decision 70127)
 - Potential solar capability
 - Access to geothermal resources
 - Potential export to California markets
 - Joint participant project

- Valley to NE Arizona
 - 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

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

DATE: 11/18/2009

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

Brian K. Keel

Brian.Keel@srpnet.com

(602) 236-0970