

**Statement of Interest  
for a  
Renewable Energy Transmission Project  
By  
Southwest Public Power Resources Group  
April 3, 2009**

Emailed Only (txrfi@wapa.gov)

Pursuant to Federal Register Vol. 74, No. 41, p. 9391, March 4, 2009, Western Area Power Administration Notice of Availability of Request for Interest, the Southwest Public Power Resources Group submits, on behalf of its members listed in Attachment A, this statement of interest identifying transmission system enhancements in Pinal County to facilitate the delivery of renewable resources. The series of proposals contained in this project are entirely within Western's Desert Southwest Region footprint, include upgrades to Western's system and other utility systems, and will facilitate the delivery of solar and wind resources from multiple proposed projects to multiple utilities.

**Entities:** The Southwest Public Power Resources Group (SPPR) is an association of approximately 40 not-for-profit electric utilities, including cooperatives, municipalities, tribal power authorities, and irrigation and electrical districts, located in Arizona and southern Nevada (see Attachment A). The majority of the SPPR members are Western customers; and, most, but not all, of the SPPR members will be involved in the proposed project.

- **Potential Joint Participants:** The SPPR Group envisions providing an "open-season" requesting interest and participation by others. Given the location and magnitude of the proposed facilities, other potential participants are likely and may include a number of renewable developers and other transmission providers in the State.

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**Project Description:** The SPPR Group has proposed the Renewable Transmission Project (RTP), or “Three Terminal Plan” (TTP), as shown on Figure 1 below. It will consist of a new three-circuit 230 kV network to interconnect new generating resources to the Western/Arizona Public Service Company (APS) Santa Rosa/Test Track (SR/TT) Substation, the Southwest Transmission Cooperative (SWTC) Marana Substation and the jointly owned Pinal Central Substation<sup>1</sup>. The TTP includes a proposed 230 kV switching station at or adjacent to Western’s existing Electrical District 5 (ED5) substation.

The TTP will consist of three added circuits as shown in Figure 1. Each of the added circuits will involve an upgrade of existing Western single-circuit 115 kV facilities to double-circuit 230 kV transmission lines. The TTP envisions one of the circuits on each of the proposed double circuit transmission lines will initially operate at 115 kV, although it will be built to 230 kV standards.

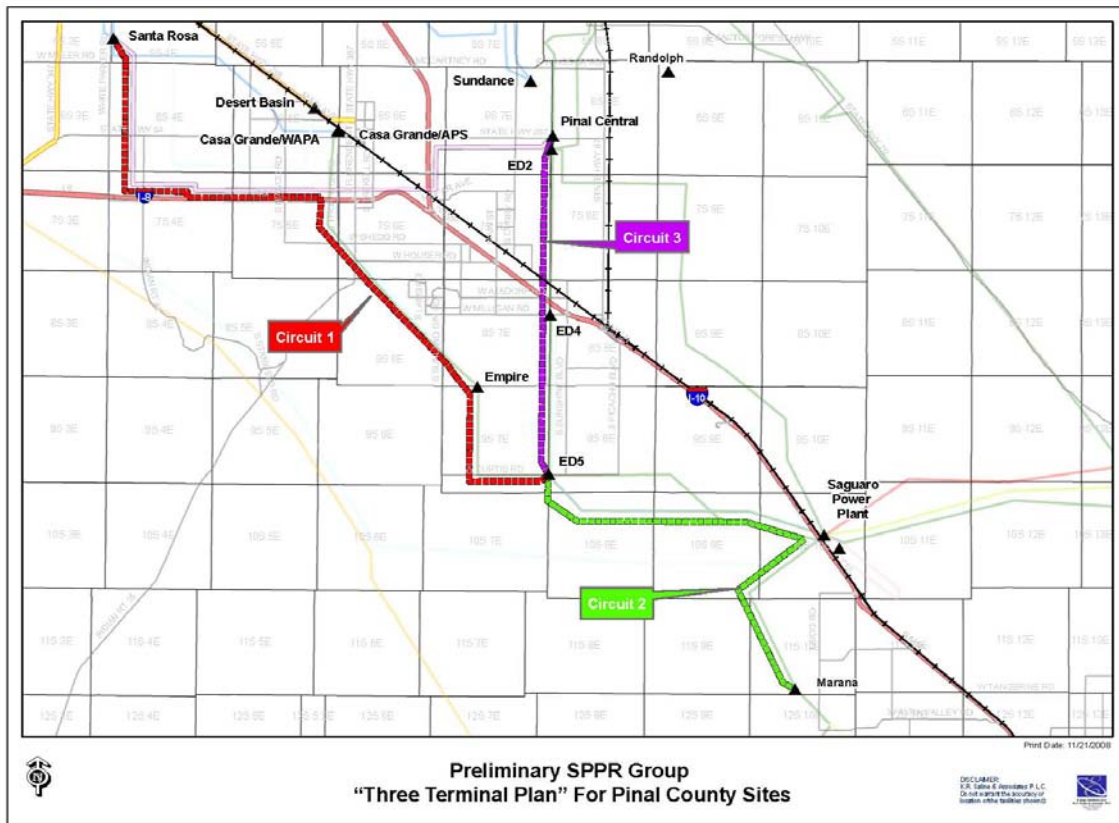
Over the last several years, SPPR has evaluated many power supply alternatives for meeting its members’ needs, including the construction of new generation resources. These evaluations included a study of numerous potential generation sites throughout the region. Each potential generation site analysis included a detailed assessment of various transmission alternatives. As a result of these evaluations, the SPPR Group has focused on a site in Pinal County. The approximately 1200 acre site, the “Sawtooth” site, is in the immediate vicinity of Western’s ED5 Substation; and, the SPPR Group continues to move forward with development activities for the construction of a new generation resource at that site. The SPPR Group has not fully configured the new generation resource(s) at the Sawtooth site at this time. However, the Sawtooth site does have the

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<sup>1</sup> Pinal Central is a proposed jointly owned 500/230/115/69 kV substation located in central Pinal County. The current owners of the Pinal Central substation site include Electrical District Number Two (ED2), Electrical District Number Three (ED3), Electrical District Number Four (ED4), Salt River Project (SRP), SWTC, and Tucson Electric Power (TEP).

potential for development of a generation resources including renewable resources and SPPR continues to investigate that potential. Technical studies of the TTP, including power flow, short circuit and transient stability, indicate that as much as 1500 MW of new generation could be injected into the TTP at the Sawtooth site. Moreover, the TTP has been included in regional planning (CATS-EHV, CATS-HV and SATS) for more than a year as well as the ACC's 10 year filing requirement and the resulting Biennial Transmission Assessment.

**Figure 1 – The Three Terminal Plan**



**Renewable Resource Description:** As indicated above, the Sawtooth site itself may provide an opportunity for the development of a solar generation project. There is also potential for the development of renewable resources at various other locations in the general vicinity of the Sawtooth site as well as other areas throughout southeastern Arizona and New Mexico that are currently largely inaccessible to many of Western's customers. SPPR members may not be able to access potential renewable resources in the Harquahala and western Arizona areas due to inadequate transmission capability of the existing transmission system.

The TTP will provide additional transmission transfer capabilities for as much as 600 MW from potential renewable resources west of the Phoenix load center (e.g., the Harquahala and Wellton-Mohawk areas) and up to 1000 or more MW from potential renewable resources that are east and/or south of the Phoenix load center, including resources in Pinal County, southeastern Arizona and New Mexico. The TTP also offers opportunities for renewable energy developers to gain access to several Arizona market hubs and access to the SPPR members (i.e., the local load serving entities). The TTP will alleviate potential transmission congestion that will discourage the development of renewable generation resources in Pinal County and southern Arizona.

Renewable developers have expressed interest in obtaining transmission access and interconnections throughout Pinal County region. The TTP provides significant new transmission capability to central Pinal County above the needs identified by the SPPR Group members.

**Interconnection Request:** Currently there are no formal renewable generation interconnection requests that designate the proposed TTP as the Point of Interconnection. However, as discussed above, the Sawtooth site will offer opportunities for generation projects including renewable components.

**Transmission Rights and/or Transmission Service:** Transmission rights and/or service on the TTP would be provided to the renewable energy project owners or purchasing entities based on their respective needs. For example, if the purchasing entity is already a Western Network Customer, it could designate the renewable energy project as a “network resource” and transmission service could be offered as Network Integrated Transmission Service (NITS).

Customers who receive transmission service on Western’s transmission system through a Point-to-Point transmission reservation may be able to contract directly with potential renewable projects and avoid “pancaked” transmission service. Therefore, cost recovery may be accomplished by including revenue requirements for the TTP in NITS and Point-to-Point transmission services as appropriate. Other arrangements may be considered, such as joint ownership in the TTP.

**Participant Roles:** SWTC, on SPPR's behalf, would cooperate and work with Western in obtaining regulatory approvals as needed to facilitate the TTP. SWTC, on SPPR's behalf, would also offer to assist Western with necessary feasibility, system impact and other studies to ensure compliance with applicable NERC and WECC standards.

**Public Interest:** This project is in the public interest in several respects:

- a. Use of Existing Corridors – Much of the project work will require upgrades of existing facilities. Such upgrades will make more effective use of existing rights-of-way and will have minimal impact on land use and diminish environmental concerns.
- b. Economic Development and Job Creation – This project will provide for the delivery of energy from new renewable resource projects. The increase in transmission capacity will improve the feasibility of renewable projects, which will lead to increased construction and operation jobs in the region.
- c. Renewable Energy – As a matter of public policy, it is recognized that increased use of renewable resources is in the public interest. This project will facilitate the use of more renewable resources to meet electric loads. It will reduce or eliminate transmission congestion, thereby increasing transmission capacity as needed to allow renewable resource access to Western's Parker-Davis customers.
- d. Reliability – The transmission facilities proposed for upgrades currently serve an ever increasing electrical load. Many of these facilities have been in service for many decades and require significant rehabilitation just to continue to reliably serve existing loads. The proposed project will provide for that rehabilitation in addition to increasing the capacity; and, new lines will be added that improve overall system reliability.

**Prior Experience:** SWTC provides transmission planning, permitting, siting, engineering design, construction and operating services to its distribution cooperative service members and other transmission customers. SWTC owns approximately 610 miles of transmission lines to help serve its distribution cooperative service members and other transmission customers in a combined service territory that covers over 15,000 square miles in rural Arizona and parts of California and New Mexico. SWTC is also involved in joint projects with other utilities, including Western.

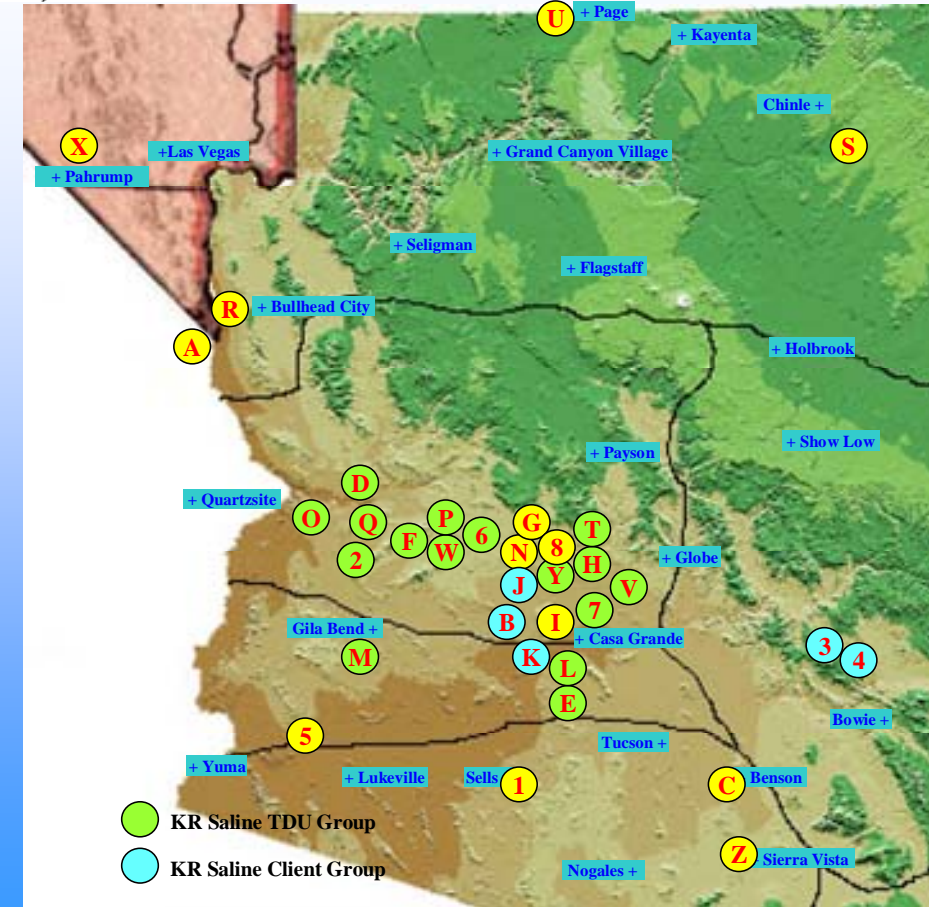
**Financial Capability:** Many of SPPR's members are involved in the construction and financing of electrical facilities on an on-going basis. All are load serving entities with a long record with Western of dependable transmission and power supply payments.

**Participation of Other Entities:** SPPR recognizes that there are other load serving entities and transmission providers that may benefit from increased access to new renewable resources in the southern Arizona area. These include SWTC, its member distribution cooperatives, APS, SRP, Central Arizona Water Conservation District and the TEP.

**Other Information:** Much attention has been focused on proposed new large bulk transmission projects to transmit renewable resources from remote locations to load centers. However, equally important are improvements to existing systems that will facilitate the delivery of those resources all the way to the local load serving entities.



# The SPPR Group Participants



- A – Aha Macav Power Service
- B – Ak Chin Energy Services
- C – AEPSCO/SWTC/Sierra
- D – Aquila Irrigation District
- E – Avra Valley Irrigation & DD
- F – Buckeye Water C&DD
- G – Central Arizona Water CD
- H – Chandler Heights CID
- I – Electrical District Number 2
- J – Electrical District Number 3
- K – Electrical District Number 4
- L – Electrical District Number 5
- M – Electrical District Number 8
- N – Gila River Indian Community UA
- O – Harquahala Valley PD
- P – Maricopa Water District
- Q – McMullen Valley PD
- R – Mohave Electric Cooperative, Inc
- S – Navajo Tribal Utility Authority
- T – Ocotillo Water CD
- U – Page Electric Utility
- V – Queen Creek Irrigation District
- W – Roosevelt Irrigation District
- X – Valley Electric Association (NV)
- Y – San Tan Irrigation District
- Z – Sulphur Springs Valley Electric
- 1 – Tohono O'odham Utility Authority
- 2 – Tonopah Irrigation District
- 3 – Town of Thatcher
- 4 – City of Safford
- 5 – Welton Mohawk IDD
- 6 – Electrical District Number 6
- 7 – Electrical District Number 7
- 8 – City of Mesa