SPP Southwest Power Pool

# *System Facilities Study For Transmission Service*

# *Requested By PECO Energy From Cogentrix To Ameren & Entergy*

# *With A Peak Of 800MW From January 1, 2001 To January 1, 2002*

***SPP Transmission Planning***
***(#SPP-1999-012)***
***(#SPP-1999-013)***

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# Southwest Power Pool Transmission Service Request #121376 & 121377
# SPP System Facilities Study SPP-1999-012 & SPP-1999-013

**Executive Summary**

At the request of Southwest Power Pool staff, Central and Southwest Services (CSWS) evaluated Transmission Service Request 121376 & 121377. These requests are for long-term firm point to point transmission service from a merchant plant in the vicinity of Public Service Company of Oklahoma's (PSO's) Riverside Power Station within the CSWS' control area. Yearly transmission service for 800 MW has been requested for 2001. Two separate requests were made for 400 MW each, OASIS request # 121376 from CSWS to Entergy and OASIS request # 121377 from CSWS to Ameren. The requested point-to-point services are from January 1, 2001 to January 1, 2002.

The principal objective of this study is to identify the costs of Network Upgrades that must be added or modified to provide the requested Transmission Service while maintaining a reliable transmission system. This study includes a good faith estimate of the Transmission Customer's assigned cost for the required Network Upgrades and the time required to complete such construction and to initiate the requested service. This study does not address the cost or lead time to construct facilities to interconnect the Cogentrix Plant to the existing System, the cost of which will be directly assigned by CSWS to Cogentrix.

The staff of CSWS completed the System Impact Study that identified system limitations and required modifications to the SPP system necessary to provide the requested Transmission Service. Network Upgrades will be required on the CSWS transmission system. These Network Upgrades include reconductoring of a 138kV transmission line, changing out disconnect switches and changing out jumpers.. The estimated total cost to engineer and construct these upgrades in 1999 dollars is

$775,000. The estimated time required to complete engineering and construction is twelve (12) months after CSWS's receipt of authorization to proceed from SPP.

The amortization period of each facility is determined by 1) the date that construction is completed and the facility is energized and 2) the end date of the requested Transmission Service. Given the annual fixed charge rates of CSWS and the amortization period of each facility, the estimate of the Revenue Requirements for the required Network Upgrades throughout the requested transaction period is $847,115. The projected base revenues from the requested service are estimated to exceed the estimate of the Revenue Requirements for the required Network Upgrades over the requested transaction period. Therefore, there will be no cost assigned to the Transmission Customer for the Network Upgrades.

The Southwest Power Pool and CSWS shall use due diligence to add necessary facilities or upgrade the Transmission System to provide the requested Transmission Service, provided PECO Energy agrees to compensate SPP for such costs pursuant to the terms of Section 27 of the SPP Open Access Transmission Tariff. Partial Interim Service is available to PECO Energy per Section 19.7 of the SPP Open Access Transmission Service Tariff.

Engineering and construction of any new facilities or modifications will not start until after a Service Agreement is in place and CSWS receives the appropriate authorization to proceed from the SPP. In accordance with section 19.4 of the SPP Open Access Transmission Service Tariff, the Transmission Customer shall provide and maintain in effect, during the term of the transmission service agreement, an unconditional and irrevocable letter of credit to the SPP in the amount of no less than $775,000 for the initial engineering and construction costs to be incurred by the transmission owners. This amount does not include other deposits for items such as Reserved Capacity as required under the tariff.

**Introduction**

PECO Energy has requested a Facility Study for Transmission Service from a merchant plant proposed for a location in the vicinity of Public Service Company of Oklahoma's (PSO's) Riverside Power Station in Tulsa, OK. This Transmission Service for 800 MW has been requested from January 1, 2001 to January 1, 2002. The total generation capability of the plant is 900 MW. This study provides no assurance of the availability of Transmission Capacity or the adequacy of existing or planned transmission facilities for Transmission Service in excess of the requested 800MW or beyond January 1, 2002.

Given the constraints identified in the System Impact Study, estimated costs and lead times for construction of Network Upgrades are provided. These estimated costs are for only those facilities required to provide the requested service. No Direct Assignment facilities are included in this study that may be required to complete the requested service.

Based on the results of the Impact Study, Network Upgrades that were identified as required to provide the requested transmission service are listed in Table 1 below. Lead times required for each individual project are provided. These lead times do not include any allowances for possible delays due to outage conflicts during construction, conflicts with construction during the summer peak, engineering and construction manpower constraints, etc. The lead times are based on engineering starting when SPP provides CSWS approval to start on the project. The total estimated time frame for engineering and construction of all projects is based on the longest lead-time project.

**Table 1: Estimated Network Upgrade Costs And Lead Times**

| NETWORK SYSTEM IMPROVEMENT | ENGINEERING & CONSTRUCTION COSTS ($ 1999 ) | ENGINEERING & CONSTRUCTION LEAD TIME |
|---|---|---|
| Changeout three(3) 138kV 600A disconnect switches at Tulsa Power Station (CB 1333A) with new 2000A switches (TPS to Carson Tap overload) | $55,000 | Six (6) Months |
| Changeout three(3) 138kV 600A disconnect switches at Tulsa Power Station (CB 1329A) with new 2000A switches (TPS to Oaks overload) | $55,000 | Six (6) Months |
| Changeout three(3) 138kV 600A disconnect switches at Tulsa Power Station (CB 1313A) with new 2000A switches (TPS to Riverside overload) | $55,000 | Six (6) Months |
| Changeout 500 CU jumpers at Dyess substation with 750 Cu jumpers (Dyess to East Rogers overload) | $10,000 | One (1) Month |
| Reconductor & Rebuild Riverside -Beeline (OG&E) 138kV line 81-523. Reconductor 1.9 miles owned by PSO & rebuild 2.81 miles of OG&E owned line. | $600,000 | Twelve (12) Months |
| TOTAL | $775,000 | Twelve (12) Months |