



**SPP** *Southwest  
Power Pool*

*System Facilities Study  
For Transmission Service*

*Requested By Southwestern Public  
Service Co.*

*From Southwestern Public Service Co.  
To Northern States Power*

*With A Peak Of 200MW  
From January 1, 2001  
To January 1, 2011*

*SPP Transmission Planning  
(#SPP-1999-010)*

**November 8, 1999**

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**Southwest Power Pool**  
**Transmission Service Requests #119194, 119196, 119197, 119198**  
**SPP System Facilities Study SPP-1999-010**

**Executive Summary**

At the request of Southwestern Public Service Co., the Southwest Power Pool staff evaluated Transmission Service Requests 119194, 119196, 119197, 119198. This request is for 200 MW (4 of 50MW each) of firm transmission service from Southwestern Public Service's control area to Northern States Power. The requested Point-To-Point Service is from January 1, 2001 to January 1, 2011.

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. No Direct Assignment facilities are included in this study that may be required to provide the requested Transmission Service.

The staff of SPP 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 Central and Southwest Services (CSWS) transmission system. These Network Upgrades include reconductoring a 138 kV transmission line and switches, a 138/69kV autotransformer replacement and 161kV breaker and switch replacements. The estimated total cost to engineer and construct these upgrades in 1999 dollars is \$2,091,304. The estimated time required to complete engineering and construction of all projects is eighteen (18) months after CSWS's receipt of authorization to proceed from SPP. Given the estimated dates in which the Network Upgrades are

required for the requested Transmission Service to be provided, there are no apparent facility limits which will delay the start date of the service.

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 \$4,517,386. 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 Southwestern Public Service Co. 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 Southwestern Public Service Co. 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 \$2,091,304 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**

Southwestern Public Service Co. has requested a Facility Study for Transmission Service from Southwest Public Service to Northern States Power. This Transmission Service for 200 MW (4 of 50MW each) has been requested from January 1, 2001 to January 1, 2011. 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 200MW.

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.

**Table 1: Estimated Network Upgrade Costs, Lead Times And Required Dates**

NETWORK SYSTEM IMPROVEMENT	ENGINEERING & CONSTRUCTION COSTS (\$ 1999 )	ENGINEERING & CONSTRUCTION LEAD TIME	DATE TO ENERGIZE (M/D/Y)
Walters Jct.: Replace a wavetrap in the Walters Jct. – Comanche 69kV line.	\$39,433	Six (6) Months	6/1/01
Elk City: Replace a 50/55MVA 138/69kV autotransformer with a 75/83MVA unit.	\$692,985	Twelve (12) Months	6/1/01
Tulsa Power Station - 36 <sup>th</sup> & Lewis 138 kV line: Rebuild & reconductor, 2 miles.	\$1,105,016	Eighteen (18) Months	6/1/03
Bartlesville SE: Replace 138kV switches in the S. Coffeyville – Dearing 138kV line.	\$48,065	Six (6) Months	12/1/05
E. Centerton: Replace a 161kV breaker & switches in the E. Centerton – Gentry 161kV line.	\$167,960	Six (6) Months	6/1/08
Gentry: Replace 161kV switches in the E. Centerton – Gentry 161kV line.	\$37,845	Six (6) Months	6/1/08
TOTAL	\$2,091,304		