



*System Facilities Study
For Transmission Service*

*Requested By Western Resources
From Empire District Electric's
State Line Power Plant
To Western Resources*

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

*SPP Transmission Planning
(#SPP-1999-015)*

December 1, 1999

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Southwest Power Pool Transmission Service Request #126958

SPP System Facilities Study SPP-1999-015

Executive Summary

At the request of Southwest Power Pool staff, Western Resources (WR) evaluated Transmission Service Request 126958. This request is for 200 MW of firm transmission service from Empire District Electric's (EDE) State Line Plant within the EDE control area to Western Resources. The requested Point-To-Point Service is from May 1, 2001 to May 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. This study does not address the cost or lead time to construct facilities to interconnect the State Line Plant to the existing System.

The staff of WR completed the System Impact Study that identified system limitations and required modifications to the SPP system necessary to provide the requested Transmission Service. However, upon further review, Network Upgrades were determined to not be required on the WR transmission system.

Given the annual fixed charge rates of WR and an amortization period equivalent to the requested Reservation, the estimate of the Revenue Requirements for the required Network Upgrades throughout the requested transaction period is \$0. The projected base revenues from the requested service will, as a result, 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.

Introduction

Western Resources has requested a Facility Study for Transmission Service from EDE's State Line Plant to Western Resources. This Transmission Service for 200 MW has been requested from May 1, 2001 to May 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.

No Direct Assignment facilities are included in this study that may be required to complete the requested service. Given the constraints identified in the System Impact Study, estimated costs and lead times for construction of Network Upgrades were not derived. The impact study for a SPP firm transmission request of 200MW transfer from EDE to WR identified three constraints on Western Resources' transmission system that are listed in Table 1.

Upon re-evaluation of the requirement for the Keene-S Alma 115 kV line upgrade by WR, it was determined that one of the units (Abilene Energy Center GT (AEC)) that was used to effect the transfer into WR's control area is a must run unit under heavy summer peak load conditions. After re-adjusting the units having an effect on the transfer, this constraint is no longer considered valid. Since the completion of the original impact study, the Pentagon 161-115 kV transformer upgrade has been identified by WR as a WR 2003 construction budget item to meet load growth in the area. Therefore, it is no longer considered to be a constraint in the 2005 summer peak transfer study.

Following a failure of Western Resources' Hoover 138/69 kV transformer that occurred earlier this fall, action has been taken by WR to re-rate the Chisholm-Ripley 69 kV line to 143 MVA. This re-rate has effectively eliminated the Chisholm-Ripley 69 kV line as a constraint in the 2008 summer peak transfer study. As a result, all constraints on the

Western Resources transmission system identified in the Impact Study have been eliminated.

Table 1: Estimated Network Upgrade Costs And Lead Times

NETWORK SYSTEM IMPROVEMENT	ENGINEERING & CONSTRUCTION COSTS (\$ 1999)	ENGINEERING & CONSTRUCTION LEAD TIME
Keene-S Alma 115 kV line, circuit 1, upgrade.	N/A	N/A
Pentagon 161-115 kv transformer upgrade	N/A	N/A
Chisholm-Ripley 69 kv line upgrade	N/A	N/A