



**SPP** *Southwest  
Power Pool*

***System Impact Study SPP-2001-132  
For Transmission Service  
Requested By  
Tenaska***

***From ERCOTE to AECI***

***For a Reserved Amount Of 50MW  
From 6/1/01  
To 9/1/01***

***SPP Transmission Planning***

## 1. Executive Summary

Tenaska has requested a system impact study for Monthly Firm transmission service from ERCOTE to AECL. The period of the transaction is from 6/1/01 to 9/1/01. The request is for reservation 245333 for the amount of 50MW.

This study was performed to identify the constraints on the SPP Regional Tariff System that result in zero capacity available for the 50MW request. For this study, the limiting element is the IPC Jefferson to Lieberman, 138kV circuit.

Several previous studies have overloaded facilities within the SPP system, one of these being the IPC Jefferson to Lieberman, 138kV circuit. Upgrades have been assigned to SPP System Impact Study SPP-2000-086 for OASIS Reservation 150680 for the purpose of relieving this overloaded facility. However, these upgrades are not scheduled for completion until 2004. The ATC is zero for the months of June through September prior to the completion of the upgrades on the IPC Jefferson to Lieberman, 138kV circuit.

## 2. Study Results

SPP reviewed the 2001SP model to determine the impact of the ERCOTE to AECL transfer on the SPP Regional Tariff System. The study found that the requested service caused an increase in the overloaded IPC Jefferson to Lieberman, 138kV circuit for the loss of Wilkes to Longwood. The previous study SPP-2000-086 identifies the IPC Jefferson to Lieberman line as a limiting constraint for the transfer. As determined in this study, upgrades to this line can not be completed until 2004.

Table 1 documents the previously assigned upgrades for the IPC Jefferson to Lieberman, 345kV circuit. These upgrades cannot be completed in the time period available.

NETWORK SYSTEM IMPROVEMENT	ENGINEERING & CONSTRUCTION COSTS (\$ 2000 )	ENGINEERING & CONSTRUCTION LEAD TIME	DATE IN SERVICE (M/D/Y)
IPC Jefferson - Lieberman 138kV: Replace Jumpers & Wavetrap by AEPW	10,000	Six (6) Months	2/1/02
IPC Jefferson - Lieberman 138kV: Reconductor 26.35 miles To 795MCM by AEPW	6,231,585	Thirty (30) Months	2/1/04

**Table 1:** Assigned Upgrades for IPC Jefferson to Lieberman, 138kV Circuit

### **3. Conclusion**

The 50MW transfer from ERCOTE to AECI increases loading on the IPC Jefferson to Lieberman, 138kV line. There is zero ATC for the IPC Jefferson to Lieberman, 138kV circuit for the loss of the Wilkes to Longwood, 345kV line for the months of June through September from 2001 until upgrades are completed in 2004. Therefore, the ATC is zero for the ERCOTE to AECI request due to the impact on this previously overloaded line.