



***Facility Study
For
Generation Interconnection
Request
GEN-2010-008***

SPP Tariff Studies

(#GEN-2010-008)

February 2011

Summary

Western Farmers Electric Cooperative (WFEC) performed a detailed Facility Study at the request of Southwest Power Pool (SPP) for Generation Interconnection request GEN-2010-008. The request for interconnection was placed with SPP in accordance with SPP's Open Access Transmission Tariff, which covers new generation interconnections on SPP's transmission system.

Interconnection Customer Interconnection Facilities

The Interconnection Customer will be responsible for the 69 kV transmission line from the Generation Facility to the Point of Interconnection (POI), a new 69kV Three-Breaker Ring-Bus WFEC's Fargo Junction 69kV station in Woodward County, OK. Additionally, the customer will be responsible for reactive power compensation equipment to maintain 95% lagging (providing vars) and 95% leading (absorbing vars) power factor at the point of interconnection.

Transmission Owner Interconnection Facilities and Non-Shared Network Upgrades

Per the following Facility Study, the Interconnection Customer is responsible for **\$2,250,000** of Transmission Owner Interconnection Facilities and non-shared network upgrades.

Shared Network Upgrades

The interconnection customer was studied within the DISIS-2010-001-1 Impact Study (January 2011). At this time, the Interconnection Customer is allocated **\$0** of shared network upgrades. If higher queued interconnection customers withdraw from the queue, suspend or terminate their GIA, restudies will have to be conducted to determine the Interconnection Customers' allocation of shared network upgrades. All studies have been conducted on the basis of higher queued interconnection requests and the upgrades associated with those higher queued interconnection requests being placed in service.

Other Network Upgrades

Certain Network Upgrades that are not the cost responsibility of the Customer are required for Interconnection. These Network Upgrades include the Woodward-Medicine Lodge double circuit 345kV transmission line and the Medicine Lodge – Wichita double circuit 345kV transmission line. These network upgrades are not schedule to be in service until December 31, 2014. Depending upon the status of higher or equally queued customers, the Interconnection Customer's in service date may be delayed until the in service date of these Network Upgrades.

WESTERN FARMERS ELECTRIC COOPERATIVE

FACILITY STUDY

For

Generation Interconnection Request 2010-008

65 MW Wind Generation Facility

In Woodward County

Near

Fargo, OK

January 20,2010

SUMMARY

Pursuant to the tariff and at the request of the Southwest Power Pool (SPP), Western Farmers Electric Cooperative (WFEC) performed the following facility Study to satisfy the Facility Study agreement executed by the requesting customer for SPP Generation Interconnection request Gen-2010-008. The request for interconnection was placed with SPP in accordance with SPP's Open Access Transmission Tariff, which covers new generation interconnections on SPP's transmission system. The requirements for interconnection consist of constructing a new 69 kV substation with a three breaker Ring-Bus and associated equipment. The Interconnection Customer may also be responsible for all or a portion of the cost to rebuild the transmission line from Fargo Junction to Woodward. See table one for estimated costs for construction.

INTRODUCTION

The Southwest Power Pool has requested a facility Study for the purpose of interconnecting approximately 65MW of wind generation within the service territory of WFEC in Woodward County, Oklahoma. The interconnect station will be owned by WFEC. The proposed in-service date is December 21, 2011.

Power Flow analysis has indicated that for the power flow case studied, it is possible to interconnect the 65 MW of generation with transmission reinforcements within the local transmission system. Given the point of interconnection there are additional requirements for interconnection including bus, breakers, switches, relaying, metering, etc.

See table one for estimated costs for construction.

INTERCONNECTION & TRANSMISSION FACILITIES

The requirements for interconnection consist of building a new 69kV Switching Station at WFEC's Fargo Junction . Fargo Junction is just a tap station with no circuit breakers . With the addition of another line a switching station will be required. Adequate land shall be acquired up front to accommodate a three breaker ring bus.

The transmission line that from Fargo Junction to Woodward is approximately 2 miles long and is 336 ACSR conductor and is good for 53 MW at Rate A and 65 MW at Rate B (emergency rating). With the current generation the line will become overloaded.

As stated in your request the collector sub is approximately four miles from the interconnect sub and it is assumed that the customer has acquired the necessary right-of-way for the interconnect transmission line.

The total cost for WFEC to build the interconnect station at Fargo Junction is estimated at \$1,500,000. This does not include building the line from the collector substation to the interconnect station. In addition, the customer is required to maintain +/- 0.95% power factor at the point of interconnection to WFEC's facilities. For other costs see table one.

This facility study does not guarantee the availability of transmission service necessary to deliver additional generation to any specific point inside or outside of the SPP transmission system. The transmission network may not be adequate to deliver any additional generation output to the system. If the customer requests firm transmission service under the SPP open access transmission tariff at a future date, network upgrades or other new construction may be required to provide the service.

The costs of interconnecting to WFEC's facilities are listed in Table one below.

Facility	Estimated Cost (2011 Dollars)
WFEC-Interconnection facility-Build new 69kV three-breaker Ring-Bus arrangement Switching Station including dead-end structure, line switches,relaying equipment,revenue metering equipment, etc.	\$1,500,000
WFEC-Rebuild transmission line from Fargo Junction to Woodward (2 Miles) 556.5 MCM 138kV spacing operate at 69kV	\$750,000
Total	\$2,250,000

Table One