



***Facility Study for Generation
Interconnection Request
GEN – 2004 – 023***

***SPP Coordinated Planning
(#GEN-2004-023)***

July 2005

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-2004-023. The request for interconnection was placed with SPP in accordance SPP's Open Access Transmission Tariff, which covers new generation interconnections on SPP's transmission system.

No new facilities are needed for interconnecting additional 20.6 MW to existing facilities.

***Generation Interconnection
Facilities Study***

For

GEN-2004-023

Western Farmers Electric Cooperative

July 2005

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Introduction

The Southwest Power Pool (SPP) has requested a Facility Study for interconnecting a 138kV interconnection for an additional 20.6 MW to a previously studied 174.25 MW wind farm facility near Apache, Oklahoma. This wind farm will be interconnected to the Washita switch station owned by Western Farmers Electric Cooperative (WFEC). This would make phase 1 and phase 2 wind farm of 194.85MW. The phase 1 wind-farm consists of 45 NEG Micon NM72 IEC I (1.65) and phase 2 wind farm consists of 67 Vestas V80 (1.80) with total capacity of 120.6 MW.

The wind farm will be connected to Washita switching Station owned by Western Farmers Electric Cooperative (WFEC) with an existing 26 mile 138 kV transmission line.

The purpose of this study is to identify the facilities and their costs that are needed to interconnect the Customer's wind farm with the Southwest Power Pool transmission system. This facilities study is done in conjunction with SPP Feasibility and Impact Studies for Generation Interconnection Request GEN-2004-023.

According to earlier submitted Facility Study for Generation interconnection request (GEN – 2003 – 004) submitted to SPP for Phase II, WFEC will construct approximately three miles of 138 kV transmission line from WFEC's Washita Switching Station to Southwestern station of AEP. WFEC will expand the Washita Switch Station from 4 breaker ring to a 5 breaker ring. AEP will construct an additional bay at the Southwestern Station.

Since the interconnection of additional 20.6 MW study project is to the same facility as of the phase II project. No additional facilities are to be connected.

Therefore, there is no additional cost associated with this interconnection and there are no construction schedule is needed.

Interconnect to Existing Facilities (See Figures 1 and 2)

Interconnecting additional 20.6MW to existing 138kV interconnection between WFEC Washita station to AEP South West station does not need additional facilities.

Interconnection Costs

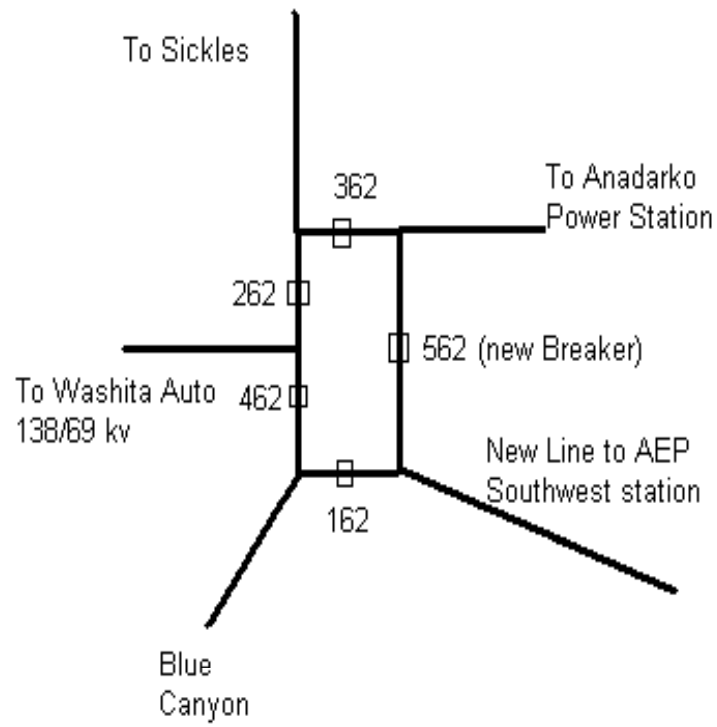
There are no additional costs associated with interconnecting the Customer's 20.6MW wind farm generation facility to the Southwest Power Pool transmission system.

Short Circuit Fault Duty Evaluation

It is standard practice for WFEC and AEP to recommend replacing a circuit breaker when the current through the breaker for a fault exceeds 100% of its interrupting rating with recloser de-rating applied, as determined by the ANSI/IEEE C37.5-1979, C37.010-1979 & C37.04-1979 breaker rating methods.

For this generator interconnection, no breakers were found to exceed their interrupting capability after the addition of the Customer's 20.6 MW generation and related facilities. WFEC/AEP found no breakers that exceeded their interrupting capabilities on the their systems. Therefore there are no short circuit upgrade costs associated with the Gen-2004-023 interconnection.

Washita Switching Station One-line Diagram



**WFEC lines
(Washita to Southwestern Station shown in Green)**

