



***Facility Study
For
Generation Interconnection
Request
GEN-2007-052***

SPP Tariff Studies

(#GEN-2007-052)

February 2010

Summary

Western Farmers Electric Cooperative (WFEC) performed the following Study at the request of the Southwest Power Pool (SPP) for Generation Interconnection request Gen-2007-052. 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.

Pursuant to the tariff, WFEC was asked to perform a detailed Facility Study of the generation interconnection request to satisfy the Facility Study Agreement executed by the requesting customer and SPP.

Transmission Owner Interconnection Facilities and Non Shared Network Upgrades

Per the following Facility Study, the Interconnection Customer is responsible for \$900,000 of the Transmission Owner Interconnection Facilities and non shared Network Upgrades.

Shared Network Upgrades

The GEN-2007-052 Interconnection Customer is included in the 1st Cluster Study approved in FERC Docket #ER09-262. At this time the shared upgrade Facility Studies are still in progress. The Interconnection Customer's estimated cost of shared upgrade costs at this time is \$0. This cost is subject to change depending upon the Facility Study for the shared network upgrades. This cost is also subject to change for restudies conducted by the Transmission Provider in response to higher queued customers or other customers in the 1st Cluster that withdraw their interconnection request or suspend, terminate, or request unexecuted filings of their LGIAs.

Generation Interconnection Facility

Study

For

GEN-2007-052

Western Farmers Electric Cooperative

January 2009

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Introduction

The Southwest Power Pool (SPP) has requested a Facility Study for interconnecting Gen-2007-052 150 MW of natural gas generation to an existing Western Farmers Electric Cooperative switching station in Anadarko.

The purpose of this study is to identify the facilities and their costs that are needed to interconnect the Customer's generation with the Southwest Power Pool transmission system. This facility study is done in conjunction with SPP Feasibility and Impact Studies for Generation Interconnection Request GEN-2007-052.

Interconnection facilities include the creation of a ring bus and necessary transmission for the Customer's interconnected generation.

Interconnection to Existing Facilities

The interconnecting customer will be responsible for the cost to construct a 4 breaker ring bus and a redundant feed to the Anadarko 138 kV switching station. This will require 5 new switches and 3 new breakers.

Short Circuit Fault Duty Evaluation

It is standard practice for WFEC 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.

No breakers were found to be underrated due to the Customer's interconnected generation.

Anadarko Fault Study Results

Bus	With Anadarko Units		Without Anadarko Units	
	3 Phase	SLG	3 Phase	SLG
Anadarko 138kV	23815	27058	21241	24036
Anadarko 69kV	12701	13891	12562	13781
PSO SWS 138kV	27540	30714	26345	29681
Washita 138kV	21447	19408	20578	18891
Washita 69kV	8533	9012	8472	8965
Snyder 138kV	2134	2271	2121	2261
Fletcher 138kV	6715	5516	6567	5443
Fletcher 69kV	7957	8458	7871	8391
Paoli 138kV	5496	3957	5468	3497
Sunshine Canyon 138kV	7237	5123	7196	5107
OU 69kV	5318	3620	5315	3619
Watonga 69kV	3789	2635	3788	2634

Interconnection Costs

138 kV Breakers (3) with switches and relaying	\$400,000
Transmission to Anadarko SW	\$500,000
Total	\$900,000

The Customer has already carried out the upgrades necessary at the Anadarko 138 kV switch station.

WFEC Anadarko 138 kV One-Line



