



***Feasibility Study
For
Generation Interconnection
Request
GEN-2005-002***

***SPP Tariff Studies
(#GEN-2005-002)***

May 6, 2005

Executive Summary

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 80MW of wind generation within the service territory of Southwestern Public Service Company (SPS) (d/b/a Xcel Energy, Inc.) in Hutchinson County Texas. The proposed point of interconnection is in the existing Riverview - Pringle 115kV line at a new switching station. This 115kV line is owned by SPS. The proposed in-service date is September 1, 2006.

Power flow analysis has indicated that for the powerflow cases studied, it is possible to interconnect the 80MW of generation with transmission system reinforcements within the local transmission system. In order to maintain acceptable bus voltages in the local area, the customer will need to install 2 switched capacitor banks, 15.3MVAR each, in the Customer's generator substation connected to both the 115kV and 34.5kV buses for a total of 30.6MVAR. Dynamic Stability studies performed as part of the impact study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC).

The requirements for interconnection consist of adding a new 115kV switching station with 3 breakers. This 115kV addition shall be constructed and maintained by SPS. The Customer did not propose a specific 115kV line extending to serve its 115-34.5kV facilities. It is assumed that obtaining all necessary right-of-way for the substation additions in the Riverview - Pringle 115kV line will not be a significant expense.

The total cost for adding a new 115kV switching station, the required interconnection facility, is estimated at \$2,590,490. Other Network Constraints in the American Electric Power West (AEPW), SPS and Western Farmers Electric Cooperative (WFEC) systems that may be verified with a transmission service request and associated studies are listed in Table 3. These Network Constraints are in the local area of the new generation when this generation is sunk throughout the SPP footprint. With a defined source and sink in a Transmission Service Request, this list of Network Constraints will be refined and expanded to account for all Network Upgrade requirements. This cost does not include building 115kV line from the Customer substation into a new SPS switching station. This cost does not include the Customer's 115-34.5kV substation.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer for future analyses including the determination of lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower. When a facility is overloaded for more than 10 contingencies, then only the results with the 10 lowest values of ATC may be included in this table.

There are several other proposed generation additions in the general area of the Customer's facility. It was assumed in this preliminary analysis that these other projects within the SPS service territory will be in service. Those previously queued

projects that have advanced to nearly complete phases were included in this Feasibility Study. In the event that another request for a generation interconnection with a higher priority withdraws, then this request may have to be re-evaluated to determine the local Network Constraints.

Introduction

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 80MW of wind generation within the service territory of SPS in Hutchinson County Texas. The existing Riverview - Pringle 115kV line is owned by SPS, and the proposed generation interconnection is within SPS. The proposed point of interconnection is at a new 115kV switching station in this line. The proposed in-service date is September 1, 2006.

Interconnection Facilities

The primary objective of this study is to identify the system problems associated with connecting the plant to the area transmission system. The Feasibility and other subsequent Interconnection Studies are designed to identify attachment facilities, Network Upgrades and other direct assignment facilities needed to accept power into the grid at the interconnection receipt point.

The requirements for interconnection consist of adding a new 115kV switching station. This 115kV addition shall be constructed and maintained by SPS. The Customer did not propose a route of its 115kV line to serve its 115-34.5kV facilities. It is assumed that obtaining all necessary right-of-way for the new SPS 115kV switching station will not be a significant expense.

The total cost for SPS to add a new 115kV switching station, the interconnection facility, in the Riverview - Pringle 115kV line is estimated at \$2,590,490. Other Network Constraints in the AEPW, SPS and WFEW systems that were identified are listed in Table 3. These estimates will be refined during the development of the impact study based on the final designs. This cost does not include building 115kV line from the Customer substation into the new SPS switching station. The Customer is responsible for this 115kV line up to the point of interconnection. This cost does not include the Customer's 115-34.5kV substation and the cost estimate should be determined by the Customer.

The costs of interconnecting the facility to the SPS transmission system are listed in Table 2. **These costs do not include any cost that might be associated with short circuit study results or dynamic stability study results.** These costs will be determined when and if a System Impact Study is conducted.

Table 1: Direct Assignment Facilities

Facility	ESTIMATED COST (2005 DOLLARS)
Customer – 115-34.5 kV Substation facilities, including a 115kV 15.3MVAR switched capacitor bank and a 34.5kV 15.3MVAR switched capacitor bank.	*
Customer – 115kV line between Customer substation and new SPS 115kV switching station.	*
Customer - Right-of-Way for Customer Substation & Line.	*
Total	*

Note: *Estimates of cost to be determined by Customer.

Table 2: Required Interconnection Network Upgrade Facilities

Facility	ESTIMATED COST (2005 DOLLARS)
SPS - Add 3-breaker ring 115kV switching station in Riverview - Pringle 115kV line.	\$2,266,369
SPS - Right-of-Way for SPS Switching Station (site cost, surveying, permitting, etc.).	\$105,000
SPS - 115kV Transmission Line Re-Termination	\$219,121
Total	\$2,590,490

Table 3: Network Constraints

Facility
SPS - Canyon West - Canyon East 115kV
SPS - Canyon West - Dawn 115kV
SPS - Cherry - Nichols Station 115kV
SPS - Conway - Kirby 115kV
SPS - Dawn - Hereford Interchange 115kV
SPS - East Plant Interchange - Manhattan 115kV
SPS - East Plant Interchange - Pierce Tap 115kV
WFEC - ELDORADO JCT - ELDORADO 69kV
WFEC - ELDORADO JCT - GYPSUM 69kV
AEPW - ELK CITY - CLINTON JUNCTION 138kV
AEPW - ELK CITY – 230-138kV
SPS - AEPW - Grapevine Interchange - ELK CITY 230kV
SPS - Grapevine Interchange 230-115kV
WFEC - GYPSUM - RUSSELL 69kV
SPS - Hale Co Interchange - Tuco Interchange 115kV
SPS - Happy Interchange - TULIAT 115kV
AEPW - WFEC - LAKE PAULINE - ELDORADO 69kV
AEPW - WFEC - LAKE PAULINE - RUSSELL 138kV
SPS - Manhattan - MANHTP 115kV
SPS - McCullough - Kingsmill Interchange 69kV
SPS - AEPW - McLean Rural - SHAMROCK 115kV
SPS - MCLELLN - Kirby 115kV
SPS - MCLELLN - McLean Rural 115kV
SPS - Nichols Station - Whitaker 115kV
SPS - Osage Switching Station - Canyon East 115kV
SPS - Osage Switching Station - MANHTP 115kV
SPS - PALODU - Happy Interchange 115kV
SPS - Pierce Tap - Osage Switching Station 115kV
SPS - Randall County Interchange - PALODU 115kV

Table 3: Network Constraints

Facility
SPS - Randall County Interchange 230-115kV
AEPW - SHAMROCK - SHAMRCK1 69-()kV
SPS - Swisher County Interchange 230-115kV
SPS - WEPL - Texas County Interchange PHSF - East Liberal 115kV
SPS - TULIAT - Kress Interchange 115kV

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Canyon West - Canyon East 115kV	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	120.6	0	4/1/2007
Canyon West - Canyon East 115kV	10SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	129.8	0	
Canyon West - Canyon East 115kV	15SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	130.2	0	
Canyon West - Canyon East 115kV	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	101.3	50	
Canyon West - Canyon East 115kV	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	101.1	60	
Canyon West - Dawn 115kV	15SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	106.2	0	6/1/2011
Cherry - Nichols Station 115kV	15SP, 50914-50922, SPS SPS-AMA , Nichols Station - Whitaker 115kV	107.2	0	6/1/2009
Cherry - Nichols Station 115kV	15SP, 50922-50956, SPS SPS-AMA , Whitaker - East Plant Interchange 115kV	104.4	0	
Cherry - Nichols Station 115kV	10SP, 50914-50922, SPS SPS-AMA , Nichols Station - Whitaker 115kV	101.0	27	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Conway - Kirby 115kV	06AP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	109.0	0	4/1/2007
Conway - Kirby 115kV	10SP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	138.4	0	
Conway - Kirby 115kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	105.2	30	
Conway - Kirby 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	103.8	34	
Dawn - Hereford Interchange 115kV	15SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	101.5	55	6/1/2013
East Plant Interchange - Manhattan 115kV	07SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	103.6	0	6/1/2007
East Plant Interchange - Manhattan 115kV	10SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	112.2	0	
East Plant Interchange - Manhattan 115kV	10SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	104.1	0	
East Plant Interchange - Manhattan 115kV	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	116.6	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
East Plant Interchange - Manhattan 115kV	15SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	107.9	0	
East Plant Interchange - Manhattan 115kV	15SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	101.5	40	
East Plant Interchange - Pierce Tap 115kV	07SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	104.2	0	6/1/2007
East Plant Interchange - Pierce Tap 115kV	10SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	112.8	0	
East Plant Interchange - Pierce Tap 115kV	10SP, 50978-51018, SPS SPS-AMA , Manhattan - MANHTP 115kV	103.2	0	
East Plant Interchange - Pierce Tap 115kV	15SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	106.5	0	
East Plant Interchange - Pierce Tap 115kV	15SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	117.3	0	
East Plant Interchange - Pierce Tap 115kV	15SP, 50978-51018, SPS SPS-AMA , Manhattan - MANHTP 115kV	107.0	0	
East Plant Interchange - Pierce Tap 115kV	10SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	101.8	11	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
ELDORADO JCT - ELDORADO 69kV	06WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	128.3	0	12/1/2006
ELDORADO JCT - ELDORADO 69kV	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	114.7	0	
ELDORADO JCT - GYPSUM 69kV	06WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	118.5	0	12/1/2006
ELDORADO JCT - GYPSUM 69kV	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	103.9	54	
ELK CITY - CLINTON JUNCTION 138kV	10WP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	110.3	0	12/1/2006
ELK CITY - CLINTON JUNCTION 138kV	10WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	108.3	14	
ELK CITY - CLINTON JUNCTION 138kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	106.2	26	
ELK CITY - CLINTON JUNCTION 138kV	06WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	105.8	28	
ELK CITY - CLINTON JUNCTION 138kV	07WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	106.2	32	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
ELK CITY - CLINTON JUNCTION 138kV	10WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345- 230kV	105.8	33	
ELK CITY - CLINTON JUNCTION 138kV	06WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345- 230kV	103.7	49	
ELK CITY - CLINTON JUNCTION 138kV	06WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	103.6	49	
ELK CITY - CLINTON JUNCTION 138kV	10WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	103.1	52	
ELK CITY - CLINTON JUNCTION 138kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003- 13 345kV	103.1	55	
ELK CITY - CLINTON JUNCTION 138kV	06AP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	103.1	58	
ELK CITY - CLINTON JUNCTION 138kV	06AP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003- 13 345kV	102.6	60	
ELK CITY - CLINTON JUNCTION 138kV	07WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	101.5	68	
ELK CITY - CLINTON JUNCTION 138kV	07WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345- 230kV	101.5	68	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
ELK CITY - ELKCTY-6 138-()kV	06AP, 99974-99992, , 2003-13 - 2002-08T 345kV	109.6	0	12/1/2006
ELK CITY - ELKCTY-6 138-()kV	06AP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	109.2	0	
ELK CITY - ELKCTY-6 138-()kV	06AP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	123.3	0	
ELK CITY - ELKCTY-6 138-()kV	06AP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	123.2	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 54290-54296, AEPW WTU , CHILDRESS - LAKE PAULINE 138kV	105.5	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 51203-59995, SPS SPS-CLHF - WECC WECC , Roosevelt County Interchange - PNM Blackwater DC 230kV	109.8	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	126.8	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 99974-99992, , 2003-13 - 2002-08T 345kV	120.7	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	125.7	0	
ELK CITY - ELKCTY-6 138-()kV	06WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345-230kV	126.9	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
ELK CITY - ELKCTY-6 230-()kV	06AP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	114.9	0	12/1/2006
ELK CITY - ELKCTY-6 230-()kV	06WP, 51203-59995, SPS SPS-CLHF - WECC WECC , Roosevelt County Interchange - PNM Blackwater DC 230kV	105.6	0	
ELK CITY - ELKCTY-6 230-()kV	06WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	118.9	0	
ELK CITY - ELKCTY-6 230-()kV	06WP, 99974-99992, , 2003-13 - 2002-08T 345kV	114.6	0	
ELK CITY - ELKCTY-6 230-()kV	06WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	117.2	0	
ELK CITY - ELKCTY-6 230-()kV	06WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345-230kV	119.0	0	
ELK CITY - ELKCTY-6 230-()kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	112.2	0	
ELK CITY - ELKCTY-6 230-()kV	07WP, 51203-59995, SPS SPS-CLHF - WECC WECC , Roosevelt County Interchange - PNM Blackwater DC 230kV	105.6	0	
ELK CITY - ELKCTY-6 230-()kV	07WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	119.5	0	
ELK CITY - ELKCTY-6 230-()kV	07WP, 99974-99992, , 2003-13 - 2002-08T 345kV	115.3	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Grapevine Interchange - ELK CITY 230kV	06AP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	122.0	0	12/1/2006
Grapevine Interchange - ELK CITY 230kV	06AP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	122.3	0	
Grapevine Interchange - ELK CITY 230kV	06WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	125.3	0	
Grapevine Interchange - ELK CITY 230kV	06WP, 99974-99992, , 2003-13 - 2002-08T 345kV	114.8	0	
Grapevine Interchange - ELK CITY 230kV	06WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	127.1	0	
Grapevine Interchange - ELK CITY 230kV	06WP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345-230kV	125.3	0	
Grapevine Interchange - ELK CITY 230kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	121.5	0	
Grapevine Interchange - ELK CITY 230kV	07WP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	123.6	0	
Grapevine Interchange - ELK CITY 230kV	07WP, 99974-99992, , 2003-13 - 2002-08T 345kV	114.3	0	
Grapevine Interchange - ELK CITY 230kV	07WP, 50858-56449, SPS SPS-AMA - SUNC SEPC , Finney Station - HOLCOMB 345kV	128.2	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Grapevine Interchange 230-115kV	06AP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	118.5	0	12/1/2006
Grapevine Interchange 230-115kV	06WP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	107.1	0	
Grapevine Interchange 230-115kV	07SP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	103.8	0	
Grapevine Interchange 230-115kV	07WP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	105.7	0	
Grapevine Interchange 230-115kV	10SP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	108.6	0	
Grapevine Interchange 230-115kV	10WP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	104.4	0	
GYP SUM - RUSSELL 69kV	06WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	108.7	5	12/1/2006
Hale Co Interchange - Tuco Interchange 115kV	06AP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	112.8	0	4/1/2007
Hale Co Interchange - Tuco Interchange 115kV	15SP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	104.1	23	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Happy Interchange - TULIAT 115kV	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	113.0	0	4/1/2007
Happy Interchange - TULIAT 115kV	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	110.5	0	
Happy Interchange - TULIAT 115kV	10SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	119.8	0	
Happy Interchange - TULIAT 115kV	15SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	123.9	0	
LAKE PAULINE - ELDORADO 69kV	06WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	172.1	0	12/1/2006
LAKE PAULINE - ELDORADO 69kV	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	155.4	0	
LAKE PAULINE - ELDORADO 69kV	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	171.3	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
LAKE PAULINE - RUSSELL 138kV	06WP, 54121-54153-54145, AEPW WESTERN , ELK CITY 230-138kV	102.5	51	12/1/2006
LAKE PAULINE - RUSSELL 138kV	10WP, 54121-54153-54145, AEPW WESTERN , ELK CITY 230-138kV	101.7	61	
LAKE PAULINE - RUSSELL 138kV	10WP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	101.2	66	
LAKE PAULINE - RUSSELL 138kV	07WP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	101.2	66	
LAKE PAULINE - RUSSELL 138kV	06AP, 54121-54153, AEPW WESTERN , ELK CITY 230-138kV	100.3	77	
Manhattan - MANHTP 115kV	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	101.1	55	6/1/2013
McCullough - Kingsmill Interchange 69kV	10SP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	106.5	4	6/1/2007
McCullough - Kingsmill Interchange 69kV	07SP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	102.5	56	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
McLean Rural - SHAMROCK 115kV	10SP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	116.4	0	6/1/2007
McLean Rural - SHAMROCK 115kV	10SP, 54121-54153, AEPW WESTERN , ELK CITY 230-138kV	116.5	0	
McLean Rural - SHAMROCK 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	107.7	12	
McLean Rural - SHAMROCK 115kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	105.0	36	
McLean Rural - SHAMROCK 115kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	105.0	36	
McLean Rural - SHAMROCK 115kV	10SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICO 115kV	101.6	47	
McLean Rural - SHAMROCK 115kV	10SP, 54276-54277-54303, AEPW WTU , JERICO 115-69kV	101.6	47	
McLean Rural - SHAMROCK 115kV	10SP, 54277-54278, AEPW WTU , JERICO - CLARENDON 69kV	101.6	48	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
MCLELLN - Kirby 115kV	07SP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	118.4	0	12/1/2006
MCLELLN - Kirby 115kV	07SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	105.3	0	
MCLELLN - Kirby 115kV	07SP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	105.2	0	
MCLELLN - Kirby 115kV	07SP, 54121-54153-54145, AEPW WESTERN , ELK CITY 230-138kV	118.3	0	
MCLELLN - Kirby 115kV	07SP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	105.3	0	
MCLELLN - Kirby 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	115.7	0	
MCLELLN - Kirby 115kV	10SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	109.4	0	
MCLELLN - Kirby 115kV	10SP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	109.4	0	
MCLELLN - Kirby 115kV	10SP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	105.8	0	
MCLELLN - Kirby 115kV	10SP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	109.4	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
MCLELLN - McLean Rural 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	113.2	0	6/1/2007
MCLELLN - McLean Rural 115kV	10SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	107.2	0	
MCLELLN - McLean Rural 115kV	10SP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	107.2	0	
MCLELLN - McLean Rural 115kV	10SP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	107.2	0	
MCLELLN - McLean Rural 115kV	10SP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	122.1	0	
MCLELLN - McLean Rural 115kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	111.3	0	
MCLELLN - McLean Rural 115kV	10SP, 54121-54153, AEPW WESTERN , ELK CITY 230-138kV	122.1	0	
MCLELLN - McLean Rural 115kV	10SP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	103.7	11	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
MCLELLN - McLean Rural 115kV	10SP, 51533-51534, SPS SPS-CNPL, Tuco Interchange 345-230kV	104.5	34	
MCLELLN - McLean Rural 115kV	10SP, 51534-54119, SPS SPS-CNPL - AEPW WESTERN , Tuco Interchange - OKLAUNION 345kV	104.4	35	
MCLELLN - McLean Rural 115kV	10SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	102.0	42	
Nichols Station - Whitaker 115kV	15SP, 50907-50957, SPS SPS-AMA , Harrington Station - East Plant Interchange 230kV	103.5	0	6/1/2011
Nichols Station - Whitaker 115kV	15SP, 50908-50914, SPS SPS-AMA , Cherry - Nichols Station 115kV	104.9	0	
Nichols Station - Whitaker 115kV	15SP, 50956-50957, SPS SPS-AMA , East Plant Interchange 230-115kV	103.5	0	
Nichols Station - Whitaker 115kV	15SP, 50908-50938, SPS SPS-AMA , Cherry - Northwest Interchange 115kV	101.6	46	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Osage Switching Station - Canyon East 115kV	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	108.0	0	12/1/2006
Osage Switching Station - Canyon East 115kV	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	133.5	0	
Osage Switching Station - Canyon East 115kV	10SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	143.3	0	
Osage Switching Station - Canyon East 115kV	15SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	144.4	0	
Osage Switching Station - Canyon East 115kV	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	115.6	0	
Osage Switching Station - Canyon East 115kV	06WP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	101.0	56	
Osage Switching Station - Canyon East 115kV	15SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	101.0	57	
Osage Switching Station - Canyon East 115kV	10SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	100.1	77	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Osage Switching Station - MANHTP 115kV	10SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	102.4	0	6/1/2008
Osage Switching Station - MANHTP 115kV	10SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	104.2	0	
Osage Switching Station - MANHTP 115kV	15SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	107.4	0	
Osage Switching Station - MANHTP 115kV	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	108.6	0	
PALODU - Happy Interchange 115kV,	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	119.8	0	4/1/2007
PALODU - Happy Interchange 115kV	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	105.5	0	
PALODU - Happy Interchange 115kV	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	136.0	0	
PALODU - Happy Interchange 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	106.3	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
PALODU - Happy Interchange 115kV	10SP, 50887-51419, SPS SPS-AMA - SPS SPS-CNPL, Potter County Interchange - Plant X Interchange 230kV	105.7	0	
PALODU - Happy Interchange 115kV	10SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	108.2	0	
PALODU - Happy Interchange 115kV	10SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	113.5	0	
PALODU - Happy Interchange 115kV	10SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	146.9	0	
PALODU - Happy Interchange 115kV	10SP, 50827-54153, SPS SPS-OKLA - AEPW WESTERN , Grapevine Interchange - ELK CITY 230kV	108.3	0	
PALODU - Happy Interchange 115kV	10SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	108.8	0	
Pierce Tap - Osage Switching Station 115kV	15SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	104.3	0	6/1/2010
Pierce Tap - Osage Switching Station 115kV	10SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	100.7	52	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Randall County Interchange - PALODU 115kV	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	120.9	0	4/1/2007
Randall County Interchange - PALODU 115kV	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	107.5	0	
Randall County Interchange - PALODU 115kV	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	138.1	0	
Randall County Interchange - PALODU 115kV	07SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	104.6	0	
Randall County Interchange - PALODU 115kV	07SP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	108.4	0	
Randall County Interchange - PALODU 115kV	10SP, 50887-51419, SPS SPS-AMA - SPS SPS-CNPL, Potter County Interchange - Plant X Interchange 230kV	107.9	0	
Randall County Interchange - PALODU 115kV	10SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	110.4	0	
Randall County Interchange - PALODU 115kV	10SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	115.7	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Randall County Interchange - PALODU 115kV	10SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	149.1	0	
Randall County Interchange - PALODU 115kV	10SP, 51388-51396, SPS SPS-CNPL, Lamton Interchange - LC-SOL 115kV	102.8	0	
Randall County Interchange 230-115kV	10SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	102.7	0	6/1/2008
Randall County Interchange 230-115kV	15SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	108.3	0	
SHAMROCK - SHAMRCK1 69-()kV	06WP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	102.6	25	12/1/2006
Swisher County Interchange 230-115kV	10SP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	103.4	0	6/1/2008
Swisher County Interchange 230-115kV	15SP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	106.0	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Table 4: Contingency Analysis Results

Facility	Model & Contingency	Facility Loading (% Rate B) Or Voltage (PU)	ATC (MW)	Date Required (M/D/Y)
Texas County Interchange PHSF - East Liberal 115kV	10WP, 50858-99974, SPS SPS-AMA - , Finney Station - 2003-13 345kV	104.2	0	12/1/2008
TULIAT - Kress Interchange 115kV	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	109.4	0	4/1/2007
TULIAT - Kress Interchange 115kV	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	104.3	0	
TULIAT - Kress Interchange 115kV	10SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	112.7	0	
TULIAT - Kress Interchange 115kV	15SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	115.7	0	

Note: When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. If the loading of a facility is higher, the level of ATC will be lower.

Powerflow Analysis

A powerflow analysis was conducted for the facility using modified versions of the 2006 April, 2006 Winter Peak, 2007 and 2010 Summer and Winter Peak, and 2015 Summer Peak models. The output of the Customer's facility was offset in each model by a reduction in output of existing online SPP generation. The proposed in-service date of the generator is September 1, 2006. The available seasonal models used were through the 2015 Summer Peak of which is the end of the current SPP planning horizon.

The analysis of the Customer's project indicates that, given the requested generation level of 80MW and location, additional criteria violations will occur on the existing AEPW, SPS and WFEC facilities under steady state conditions in the peak seasons.

There are several other proposed generation additions in the general area of the Customer's facility. Local projects that were previously queued were assumed to be in service in this Feasibility Study. Those local projects that were previously queued and have advanced to nearly complete phases were included in this Feasibility Study.

In order to complete valid load flow solutions for various contingencies, additional reactive compensation is required in the SPS area. For contingencies where valid solutions were obtained, up to 450MVAR is required on a contingency basis to prevent voltage collapse. On a pro-rata basis, this customer must install approximately 30.6MVAR in 2 switched capacitor banks in the Customer's 115-34.5kV Substation with one bank being 115kV and the other 34.5kV. Dynamic Stability studies performed as part of the impact study will provide additional guidance as to whether the reactive compensation can be static or a portion must be dynamic (such as a SVC).

Valid load flow solutions could not be achieved for all contingencies without additional transmission facilities between SPS and the remainder of SPP. When additional transmission facilities are evaluated as part of a future transmission service request, then the need for additional reactive compensation may have to be re-evaluated at that time.

Powerflow Analysis Methodology

The Southwest Power Pool (SPP) criteria states that: "The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable *NERC Planning Standards* for System Adequacy and Security – Transmission System Table I hereafter referred to as NERC Table I) and its applicable standards and measurements".

Using the created models and the ACCC function of PSS\E, single contingencies in portions or all of the modeled control areas of American Electric Power West, Southwestern Public Service Company and Western Farmers Electric Cooperative were applied and the resulting scenarios analyzed. This satisfies the 'more probable' contingency testing criteria mandated by NERC and the SPP criteria.

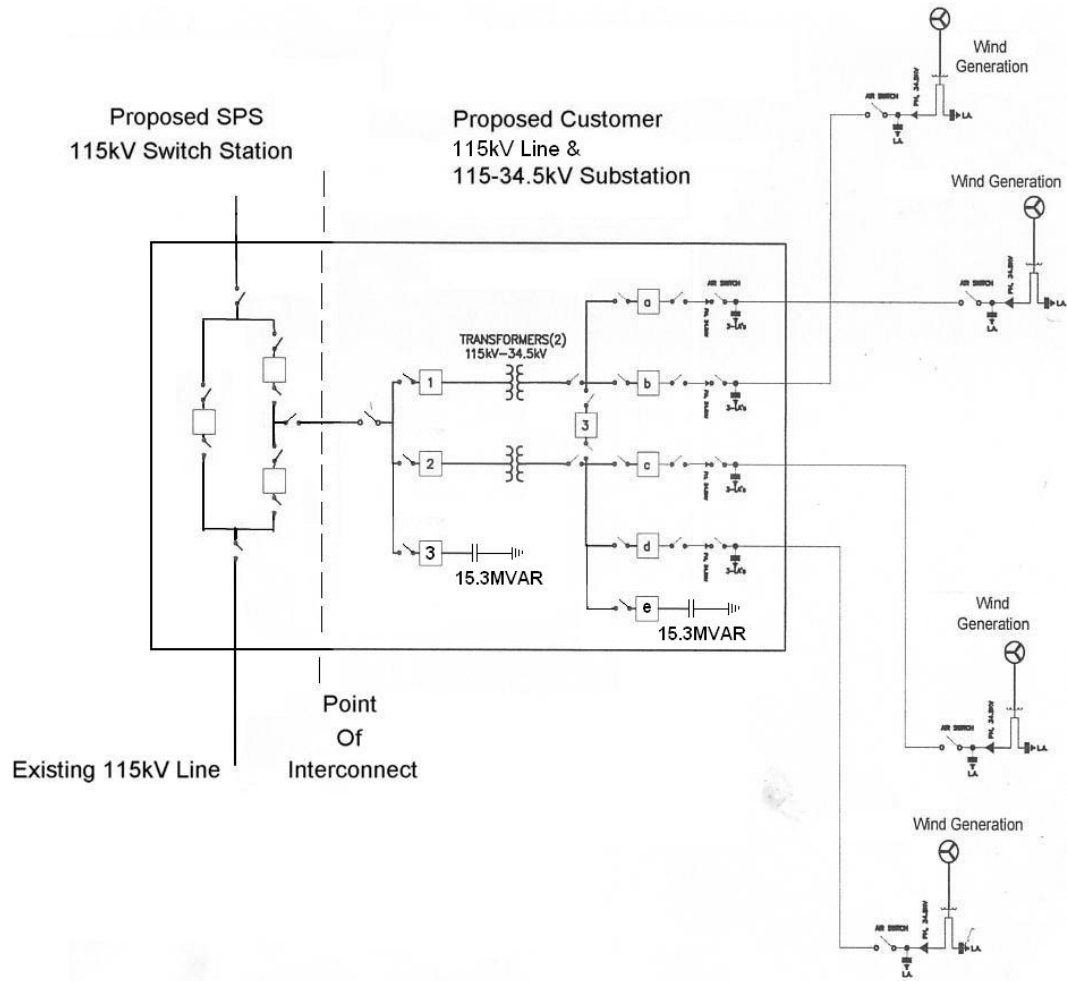
Conclusion

The minimum cost of interconnecting the Customer project is estimated at \$2,590,490 for SPS's interconnection Network Upgrade facilities listed in Table 2 excluding upgrades of other transmission facilities by AEPW, SPS and WFEW listed in Table 3 of which are Network Constraints. At this time, the cost estimates for other Direct Assignment facilities including those in Table 1 have not been defined by the Customer. As stated earlier, local projects that were previously queued are assumed to be in service in this Feasibility Study. At a minimum, 2 additional 15.3MVAR switched capacitor banks will be required in the Customer's 115-34.5kV Substation to maintain adequate voltage in the local area with the banks connected to both the 115kV and 34.5kV buses.

In Table 4, a value of Available Transfer Capability (ATC) associated with each overloaded facility is included. These values may be used by the Customer to determine lower generation capacity levels that may be installed. When transmission service associated with this interconnection is evaluated, the loading of the facilities listed in this table may be greater due to higher priority reservations. When a facility is overloaded for more than 10 contingencies, then only the results with the 10 lowest values of ATC may be included in this table.

These interconnection costs do not include any cost that may be associated with short circuit or transient stability analysis. These studies will be performed if the Customer signs a System Impact Study Agreement.

The required interconnection costs listed in Table 2 and other upgrades associated with Network Constraints listed in Table 3 do not include all costs associated with the deliverability of the energy to final customers. These costs are determined by separate studies if the Customer requests transmission service through Southwest Power Pool's OASIS.



**Figure 1: Proposed Interconnection
(Final substation design to be determined)**

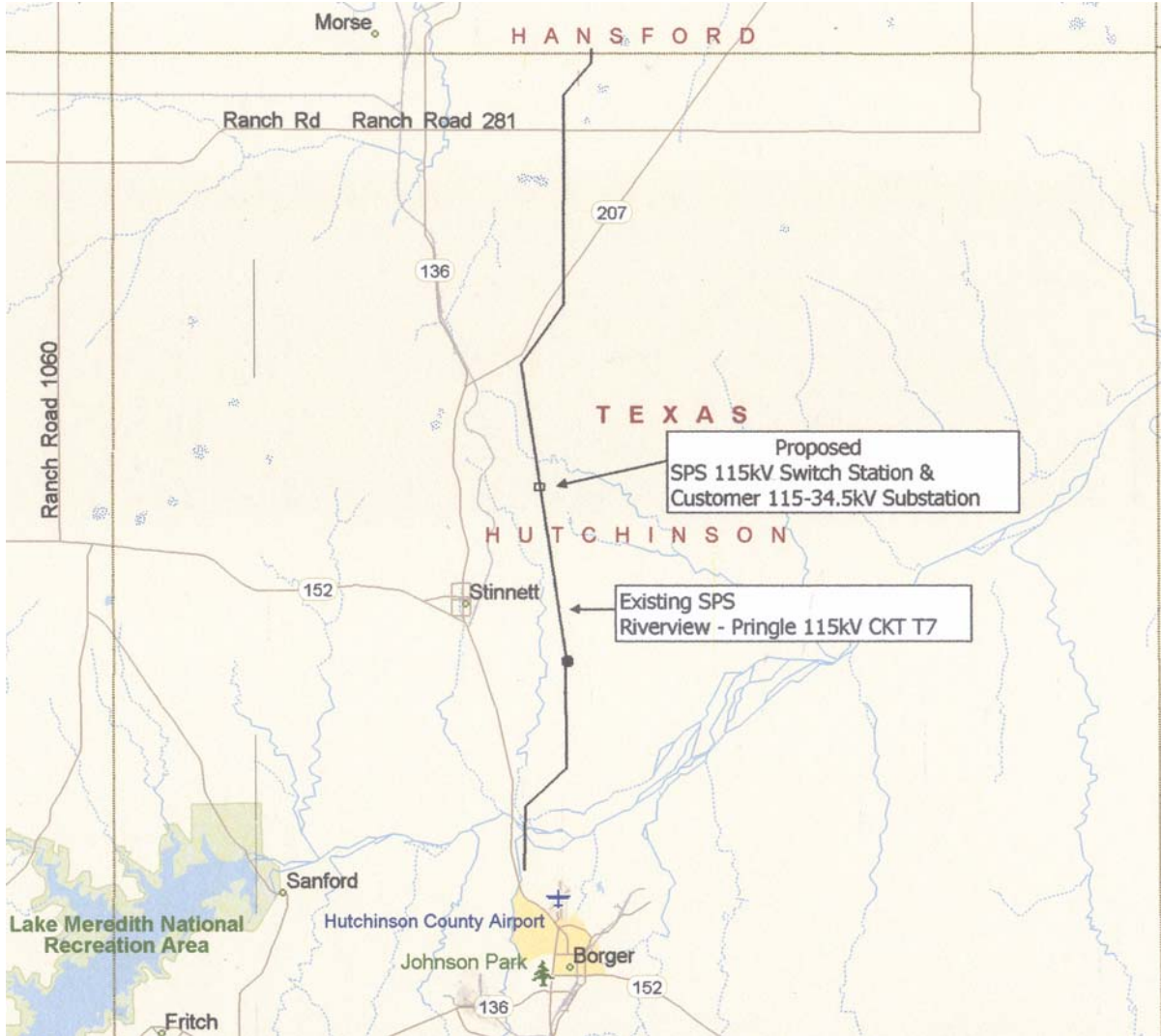


Figure 2: Map Of The Surrounding Area