Southwest Power Pool

Feasibility Study For Generation Interconnection Request GEN-2005-021

SPP Tariff Studies
(#GEN-2005-021)

May 4, 2006

Executive Summary

<OMITTED TEXT> (Customer) has requested a Feasibility Study for the purpose of interconnecting 150MW of generation within the service territory of Southwestern Public Service Company (SPS) (d/b/a Xcel Energy, Inc.) in Gray and Donley County Texas near Alanreed. The Customer's proposed point of interconnection is in the existing Kirby 115kV Substation. This 115kV facility is owned by SPS. The proposed in-service date is July 1, 2007.

Power flow analysis has indicated that for the powerflow cases studied, it is possible to interconnect the 150MW of generation with transmission system reinforcements within the local transmission systems. In order to maintain acceptable bus voltages in the local area, the customer will need to install one switched 115kV 10.8MVAR capacitor bank plus a 34.5kV 30MVAR SVC in the Customer's generator substation for a total of 40.8MVAR. Dynamic Stability studies performed as part of the impact study will provide additional guidance as to whether the required reactive compensation can be static or a portion must be dynamic (such as a SVC).

The requirements for interconnection consist of adding 115kV bus and breaker in the existing Kirby Substation. 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 Kirby 115kV facility will not be a significant expense.

The total cost for adding new 115kV facilities in the existing Kirby Substation, the required interconnection facility, is estimated at $350,000. Other Network Constraints in the American Electric Power West (AEPW), Sunflower Electric Power Corporation (SUNC), SPS, West Plains Energy (WEPL) (d/b/a/ Aquila, Inc.) 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 for the Energy Resource Interconnection request. With a defined source and sink in a Transmission Service Request (TSR), 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 the upgraded SPS Kirby Substation. 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 highest values of loading may be included in this table. Given the contingency analyses in this area with the Customer exporting generation, steady-state solutions were not obtained for outages of SPS' eastern and northern 345kV lines. In addition,

there were no solutions for a multitude of other contingencies at various voltages in all cases. Therefore, the ATC associated with this interconnection is 0MW. These contingency analyses will have to be re-evaluated as part of a TSR with additional transmission facilities between SPS and the remainder of SPP.

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 150MW of generation within the service territory of SPS in Gray and Donley County Texas near Alanreed. The existing Kirby 115kV Substation is owned by SPS, and the proposed generation interconnection is within SPS at this substation. The proposed in-service date is July 1, 2007.

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 115kV bus and breaker in the existing Kirby 115kV Substation. 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 substation addition in the Kirby facility will not be a significant expense.

The total cost for adding new 115kV facilities in the existing Kirby Substation, the required interconnection facility, is estimated at $350,000. Other Network Constraints in the AEPW, SPS, SUNC, WEPL and WFEC 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 upgraded SPS Kirby Substation. 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 (2006 DOLLARS)
Customer – 115-34.5kV Substation facilities including one 115kV 10.8MVAR capacitor bank, plus a 34.5kV 30MVAR SVC.	*
Customer – 115kV line between Customer substation and upgraded SPS Kirby Substation.	*
Customer - Right-of-Way for Customer Substation & Line.	*
SPS - New 115kV bus, breaker, etc. in existing Kirby Substation.	350,000
Total	*****

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

Table 2: Required Interconnection Network Upgrade Facilities

Facility	ESTIMATED COST (2006 DOLLARS)
	$0
Total	**$0**

Table 3: Network Constraints

Facility
AEPW - ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148, Base Case
AEPW - ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1, Base Case
AEPW - ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2, Base Case
SPS - Grapevine Interchange - ELK CITY 230kV, 50827 - 54153, Base Case
AEPW - Grapevine Interchange - ELK CITY 230kV, 50827 - 54153, Base Case
SPS - Grapevine Interchange 230-115kV, 50826 - 50827, Base Case
WEPL - Greensburg - Judson Large 115kV, 58764 - 58771, Base Case
WEPL - Harper - Medicine Lodge 138kV, 58768 - 58774, Base Case
AEPW - JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2, Base Case
AEPW - JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1, Base Case
AEPW - LAKE PAULINE - RUSSELL 138kV, 54296 - 56043, Base Case
WFEC - LAKE PAULINE - RUSSELL 138kV, 54296 - 56043, Base Case
SPS & AEPW - McLean Rural - SHAMROCK 115kV, 50840 - 54295, Base Case
SPS - MCLELLN - Kirby 115kV, 50838 - 50932, Base Case
SPS - MCLELLN - McLean Rural 115kV, 50838 - 50840, Base Case
WEPL - Medicine Lodge 138-115kV, 58773 - 58774, Base Case
WEPL - Mullergren - Spearville 230kV, 58779 – 58795, Base Case
SPS - PALODU - Happy Interchange 115kV, 51082 - 51302, Base Case
SPS - Randall County Interchange - PALODU 115kV, 51020 - 51082, Base Case
AEPW - SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2, Base Case
AEPW - SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1, Base Case
AEPW - SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2, Base Case
AEPW - SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1, Base Case
SPS - Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772, Base Case
WEPL - Texas County Interchange PHSF - East Liberal 115kV, 50600 – 58772, Base Case
AEPW - ALTUS JCT TAP - RUSSELL 138kV, 54111 - 56043
WFEC - ALTUS JCT TAP - RUSSELL 138kV, 54111 - 56043
AEPW & OMPA - ALTUS JUNCTION - OMPA-ALTUS PARK 69kV, 54104 - 56245
AEPW - AMOCO TAP - CHILDRESS 69kV, 54287 - 54289

Table 3: Network Constraints

Facility
SPS - Bushland Interchange - Deaf Smith Interchange 230kV, 50993 - 51111
SPS - Canyon West - Canyon East 115kV, 51078 - 51080
SPS - Canyon West - Dawn 115kV, 51078 - 51102
AEPW - CAREY - AIRPORT 69kV, 54285 - 54286
WFEC - CARTER JCT - DILL JCT 69kV, 55846 - 55876
SPS - Cherry - Nichols Station 115kV, 50908 - 50914
SPS - Cherry - Northwest Interchange 115kV, 50908 - 50938
AEPW - CLARENDON - CLARENDON REA 69kV, 54278 - 54279
SPS - Dawn - Hereford Interchange 115kV, 51102 - 51106
SUNC - DIGHTON TAP - MANNING TAP 115kV, 56360 - 56362
WFEC - DILL JCT - ELK CITY 69kV, 55876 - 55897
SPS - East Plant Interchange - Manhattan 115kV, 50956 - 50978
SPS - East Plant Interchange - Pierce Tap 115kV, 50956 - 50964
WFEC - ELDORADO JCT - ELDORADO 69kV, 55895 - 55896
WFEC - ELDORADO JCT - GYPSUM 69kV, 55895 - 55929
AEPW - ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148
AEPW - ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1
AEPW - ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2:
AEPW & WFEC - ELK CITY - MOREWOOD SW 138kV, 54121 - 56001
AEPW - ELK CITY 69kV, 54122 - 55897
WFEC - ELK CITY 69kV, 54122 - 55897
AEPW - ESTELENE - CAREY 69kV, 54284 - 54285
SPS - Grapevine Interchange - ELK CITY 230kV, 50827 - 54153
AEPW - Grapevine Interchange - ELK CITY 230kV, 50827 - 54153
SPS - Grapevine Interchange - Kirby 115kV, 50826 - 50932
SPS - Grapevine Interchange 230-115kV, 50826 - 50827
WEPL - Greensburg - Judson Large 115kV, 58764 - 58771
WEPL - Greensburg - Sun City 115kV, 58764 - 58797
WFEC - GYPSUM - RUSSELL 69kV, 55929 - 56042

Table 3: Network Constraints

Facility
SPS - Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532
SPS - Happy Interchange - TULIAT 115kV, 51302 - 51310
WEPL - Harper - Medicine Lodge 138kV, 58768 - 58774
SPS - HASTNG - Van Buren 1 Tap 69kV, 50949 - 50961
AEPW - JERICHO - CLARENDON 69kV, 54277 - 54278
AEPW - JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2
AEPW - JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1
SPS - Kress Interchange - Hale Co Interchange 115kV, 51316 - 51402
AEPW - LAKE PAULINE - ELDORADO 69kV, 54297 - 55896
WFEC - LAKE PAULINE - ELDORADO 69kV, 54297 - 55896
AEPW - LAKE PAULINE - RUSSELL 138kV, 54296 - 56043
WFEC - LAKE PAULINE - RUSSELL 138kV, 54296 - 56043
SPS - LE-WAIT 115-69kV, 52350 - 52441
SPS - Manhattan - MANHTP 115kV, 50978 - 51018
AEPW - McLean Rural - SHAMROCK 115kV, 50840 - 54295
SPS - McLean Rural - SHAMROCK 115kV, 50840 - 54295
SPS - MCLELLN - Kirby 115kV, 50838 - 50932
SPS - MCLELLN - McLean Rural 115kV, 50838 - 50840
WEPL - Medicine Lodge - Sun City 115kV, 58773 - 58797
WEPL - Medicine Lodge 138-115kV, 58773 - 58774
WEPL - Mullergren - Spearville 230kV, 58779 – 58795
SPS - Nichols Station - Whitaker 115kV, 50914 - 50922
SPS - Nichols Station - YARNELL 115kV, 50914 - 50926
SPS - Osage Switching Station - Canyon East 115kV, 51014 - 51080
SPS - Osage Switching Station - MANHTP 115kV, 51014 – 51018
SPS - PALODU - Happy Interchange 115kV, 51082 – 51302
SPS - Pierce Tap - Osage Switching Station 115kV, 50964 – 51014
SPS - Randall County Interchange - PALODU 115kV, 51020 – 51082

Table 3: Network Constraints

Facility
SPS - Randall County Interchange 230-115kV, 51020 - 51021
SPS - Roswell Interchange 115-69kV, 52093 - 52094
SPS - Seven Rivers Interchange 115-69kV, 52294 - 52295
AEPW - SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2
AEPW - SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1
AEPW - SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2
AEPW - SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1
WEPL - Spearville - SPEARVL 230-( )kV, 58795 - WND 1
SUNC - SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2
WEPL - Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1
SUNC - SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2
SPS - Texas County Interchange - Texas County Interchange PHSF 115kV, 50596 - 50600
SPS - Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772
WEPL - Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772
SPS - TULIAT - Kress Interchange 115kV, 51310 - 51316
SPS - Whitaker - East Plant Interchange 115kV, 50922 - 50956
SPS - YARNELL - Conway 115kV, 50926 - 50928

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, 54121 - 54148,	15SP, Base Case	113.3	0	7/1/2007
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07WP, Base Case	111.2	23	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07SP, Base Case	110.4	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1,	07WP, Base Case	145.6	0	7/1/2007
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	15SP, Base Case	142.0	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07SP, Base Case	138.5	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	06AP, Base Case	133.6	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2,	07WP, Base Case	140.9	0	7/1/2007
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	15SP, Base Case	138.1	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07SP, Base Case	135.7	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	06AP, Base Case	131.7	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153,	07WP, Base Case	144.0	0	7/1/2007
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153,	15SP, Base Case	138.7	0	7/1/2007
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07SP, Base Case	131.3	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	06AP, Base Case	121.6	0	
Grapevine Interchange 230-115kV, 50826 - 50827,	06AP, Base Case	117.8	81	7/1/2007

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)
Greensburg - Judson Large 115kV, 58764 - 58771,	15SP, Base Case	165.2	0	7/1/2007
Greensburg - Judson Large 115kV, 58764 - 58771	07WP, Base Case	156.3	0	
Greensburg - Judson Large 115kV, 58764 - 58771	07SP, Base Case	150.1	0	
Greensburg - Judson Large 115kV, 58764 - 58771	06AP, Base Case	108.8	0	
Harper - Medicine Lodge 138kV, 58768 - 58774,	15SP, Base Case	131.1	0	12/1/2007
Harper - Medicine Lodge 138kV, 58768 - 58774	07WP, Base Case	127.4	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2,	15SP, Base Case	120.6	0	7/1/2007
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07WP, Base Case	117.7	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, Base Case	116.5	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1,	15SP, Base Case	113.0	0	7/1/2007
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	07WP, Base Case	111.4	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	07SP, Base Case	111.0	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043,	06AP, Base Case	106.4	101	7/1/2007
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043,	07WP, Base Case	104.1	125	7/1/2007
McLean Rural - SHAMROCK 115kV, 50840 - 54295,	06AP, Base Case	100.8	143	7/1/2007
MCLELLN - Kirby 115kV, 50838 - 50932,	15SP, Base Case	130.5	0	7/1/2007
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, Base Case	123.9	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07WP, Base Case	106.9	95	
MCLELLN - Kirby 115kV, 50838 - 50932	06AP, Base Case	104.0	117	

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, 50838 - 50840,	06AP, Base Case	103.0	125	7/1/2007
Medicine Lodge 138-115kV, 58773 - 58774,	07WP, Base Case	134.4	0	7/1/2007
Medicine Lodge 138-115kV, 58773 - 58774	15SP, Base Case	133.1	0	
Medicine Lodge 138-115kV, 58773 - 58774	07SP, Base Case	114.5	0	
Mullergren - Spearville 230kV, 58779 - 58795,	15SP, Base Case	109.7	0	7/1/2007
Mullergren - Spearville 230kV, 58779 - 58795	07SP, Base Case	103.4	87	
PALODU - Happy Interchange 115kV, 51082 - 51302,	15SP, Base Case	118.5	0	6/1/2011
Randall County Interchange - PALODU 115kV, 51020 - 51082,	07SP, Base Case	106.6	0	7/1/2007
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2,	07SP, Base Case	114.5	0	7/1/2007
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, Base Case	111.0	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1,	06AP, Base Case	111.8	0	7/1/2007
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2,	06AP, Base Case	107.3	0	7/1/2007
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1,	06AP, Base Case	105.9	0	7/1/2007
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772,	07WP, Base Case	106.5	67	7/1/2007
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772,	15SP, Base Case	106.4	58	7/1/2007
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	06AP, Base Case	100.9	135	

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)
ALTUS JCT TAP - RUSSELL 138kV, 54111 - 56043,	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	105.1	136	7/1/2007
ALTUS JCT TAP - RUSSELL 138kV, 54111 - 56043,	07WP, 54109-54121, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - ELK CITY 138kV	104.4	129	7/1/2007
ALTUS JCT TAP - RUSSELL 138kV, 54111 - 56043	07WP, 54109-54126, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - HOBART JUNCTION 138kV	103.4	133	
ALTUS JUNCTION - OMPA-ALTUS PARK 69kV, 54104 - 56245,	07SP, 54126-54158, AEPW WESTERN , HOBART JUNCTION - TAMARAC TAP 138kV	101.3	146	7/1/2007
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289,	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	123.6	6	7/1/2007
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	123.1	6	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	122.1	0	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	122.1	0	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	117.9	27	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	117.2	44	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	115.6	43	
AMOCO TAP - CHILDRESS 69kV, 54287 - 54289	06AP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	113.8	56	
Bushland Interchange - Deaf Smith Interchange 230kV, 50993 - 51111,	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	110.2	0	6/1/2011

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)
Canyon West - Canyon East 115kV, 51078 - 51080,	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	141.9	0	7/1/2007
Canyon West - Canyon East 115kV, 51078 - 51080	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	138.3	0	
Canyon West - Canyon East 115kV, 51078 - 51080	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	126.7	0	
Canyon West - Canyon East 115kV, 51078 - 51080	15SP, 51106-51110, SPS SPS-CLHF, Hereford Interchange - Deaf Smith Interchange 115kV	107.2	0	
Canyon West - Canyon East 115kV, 51078 - 51080	06AP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	103.7	63	
Canyon West - Canyon East 115kV, 51078 - 51080	15SP, 50887-50993, SPS SPS-AMA , Potter County Interchange - Bushland Interchange 230kV	102.6	87	
Canyon West - Dawn 115kV, 51078 - 51102,	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	125.8	0	7/1/2007
Canyon West - Dawn 115kV, 51078 - 51102	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	119.9	0	
Canyon West - Dawn 115kV, 51078 - 51102	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	101.8	111	
CAREY - AIRPORT 69kV, 54285 - 54286,	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	100.0	150	7/1/2007

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)
CARTER JCT - DILL JCT 69kV, 55846 - 55876,	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	132.7	0	7/1/2007
CARTER JCT - DILL JCT 69kV, 55846 - 55876	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	132.6	0	
CARTER JCT - DILL JCT 69kV, 55846 - 55876	06AP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	123.1	0	
CARTER JCT - DILL JCT 69kV, 55846 - 55876	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	123.1	0	
CARTER JCT - DILL JCT 69kV, 55846 - 55876	06AP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	123.1	0	
Cherry - Nichols Station 115kV, 50908 - 50914,	15SP, 50914-50922, SPS SPS-AMA , Nichols Station - Whitaker 115kV	118.1	0	6/1/2011
Cherry - Nichols Station 115kV, 50908 - 50914	15SP, 50922-50956, SPS SPS-AMA , Whitaker - East Plant Interchange 115kV	115.4	0	
Cherry - Nichols Station 115kV, 50908 - 50914	15SP, 50955-50961, SPS SPS-AMA , East Plant Interchange - Van Buren 1 Tap 69kV	102.7	49	
Cherry - Nichols Station 115kV, 50908 - 50914	15SP, 50887-50993, SPS SPS-AMA , Potter County Interchange - Bushland Interchange 230kV	100.5	135	
Cherry - Northwest Interchange 115kV, 50908 - 50938,	15SP, 50914-50922, SPS SPS-AMA , Nichols Station - Whitaker 115kV	108.8	0	6/1/2011

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)
CLARENDON - CLARENDON REA 69kV, 54278 - 54279,	07SP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	107.7	112	7/1/2007
CLARENDON - CLARENDON REA 69kV, 54278 - 54279	07SP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	107.6	111	
CLARENDON - CLARENDON REA 69kV, 54278 - 54279	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	107.5	0	
CLARENDON - CLARENDON REA 69kV, 54278 - 54279	07SP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	106.9	114	
CLARENDON - CLARENDON REA 69kV, 54278 - 54279	07SP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	106.9	114	
CLARENDON - CLARENDON REA 69kV, 54278 - 54279	07SP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	102.8	134	
Dawn - Hereford Interchange 115kV, 51102 - 51106,	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	123.3	0	7/1/2007
Dawn - Hereford Interchange 115kV, 51102 - 51106	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	115.5	0	
DIGHTON TAP - MANNING TAP 115kV, 56360 - 56362,	06AP, 56449-56469, SUNC SEPC , HOLCOMB - SPEARVILLE 345kV	103.1	80	7/1/2007
DILL JCT - ELK CITY 69kV, 55876 - 55897,	07WP, 54121-56001, AEPW WESTERN - WFEC AEP-CS , ELK CITY - MOREWOOD SW 138kV	102.0	127	12/1/2007

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, 50956 - 50978,	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	136.4	0	7/1/2007
East Plant Interchange - Manhattan 115kV, 50956 - 50978	15SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	127.7	0	
East Plant Interchange - Manhattan 115kV, 50956 - 50978	15SP, 51020-51021, SPS SPS-AMA , Randall County Interchange 230-115kV	112.7	0	
East Plant Interchange - Manhattan 115kV, 50956 - 50978	15SP, 50907-51021, SPS SPS-AMA , Harrington Station - Randall County Interchange 230kV	112.7	0	
East Plant Interchange - Manhattan 115kV, 50956 - 50978	07SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	112.5	0	
East Plant Interchange - Manhattan 115kV, 50956 - 50978	07SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	104.8	53	
East Plant Interchange - Manhattan 115kV, 50956 - 50978	07SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	100.8	128	

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 - Pierce Tap 115kV, 50956 - 50964,	15SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	137.0	0	7/1/2007
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	15SP, 50978-51018, SPS SPS-AMA , Manhattan - MANHTP 115kV	126.8	0	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	07SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	113.2	0	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	15SP, 50907-51021, SPS SPS-AMA , Harrington Station - Randall County Interchange 230kV	113.2	0	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	15SP, 51020-51021, SPS SPS-AMA , Randall County Interchange 230-115kV	113.1	0	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	07SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	105.5	0	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	07SP, 50978-51018, SPS SPS-AMA , Manhattan - MANHTP 115kV	104.1	66	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	15SP, 50908-50914, SPS SPS-AMA , Cherry - Nichols Station 115kV	102.2	98	
East Plant Interchange - Pierce Tap 115kV, 50956 - 50964	15SP, 50908-50938, SPS SPS-AMA , Cherry - Northwest Interchange 115kV	100.2	145	

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, 55895 - 55896,	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	228.7	0	7/1/2007
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	15SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	210.9	0	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	207.8	0	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	122.1	41	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	109.7	107	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 54121-54122-54156, AEPW WESTERN , ELK CITY 138-69kV	106.2	106	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 50826-50827, SPS SPS-OKLA, Grapevine Interchange 230-115kV	106.1	119	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 55876-55897, WFEC AEP-CS , DILL JCT - ELK CITY 69kV	100.9	144	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	100.6	146	
ELDORADO JCT - ELDORADO 69kV, 55895 - 55896	06AP, 56449-56469, SUNC SEPC , HOLCOMB - SPEARVILLE 345kV	100.5	147	

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 - GYPSUM 69kV, 55895 - 55929,	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	219.3	0	7/1/2007
ELDORADO JCT - GYPSUM 69kV, 55895 - 55929	15SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	199.5	0	
ELDORADO JCT - GYPSUM 69kV, 55895 - 55929	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	197.0	0	
ELDORADO JCT - GYPSUM 69kV, 55895 - 55929	06AP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	113.7	84	
ELDORADO JCT - GYPSUM 69kV, 55895 - 55929	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	102.7	126	

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, 54121 - 54148,	07WP, 54121-56001, AEPW WESTERN - WFEC AEP-CS , ELK CITY - MOREWOOD SW 138kV	139.6	0	7/1/2007
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	15SP, 54109-54121, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - ELK CITY 138kV	138.7	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	15SP, 54109-54126, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - HOBART JUNCTION 138kV	136.8	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07WP, 54109-54121, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - ELK CITY 138kV	136.2	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07SP, 54109-54121, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - ELK CITY 138kV	135.5	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07WP, 54109-54126, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - HOBART JUNCTION 138kV	135.1	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07SP, 54109-54126, AEPW WESTERN , CLINTO AIR FORCE BASE TAP - HOBART JUNCTION 138kV	133.8	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	15SP, 54121-56001, AEPW WESTERN - WFEC AEP-CS , ELK CITY - MOREWOOD SW 138kV	131.7	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07WP, 55999-56001, WFEC AEP-OP - WFEC AEP-CS , MOORELAND - MOREWOOD SW 138kV	128.5	0	
ELK CITY - CLINTON JUNCTION 138kV, 54121 - 54148	07SP, 54121-56001, AEPW WESTERN - WFEC AEP-CS , ELK CITY - MOREWOOD SW 138kV	126.4	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)
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1,	07WP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	149.7	0	7/1/2007
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	149.7	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	149.6	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07SP, 54290-54296, AEPW WTU , CHILDRESS - LAKE PAULINE 138kV	148.8	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	148.7	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54286-54287, AEPW WTU , AIRPORT - AMOCO TAP 69kV	148.2	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54285-54286, AEPW WTU , CAREY - AIRPORT 69kV	148.2	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54284-54285, AEPW WTU , ESTELENE - CAREY 69kV	148.2	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	148.2	0	
ELK CITY - ELKCTY-6 138-( )kV, 54121 - WND 1	07WP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	148.2	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)
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2,	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	144.2	0	7/1/2007
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07SP, 54290-54296, AEPW WTU , CHILDRESS - LAKE PAULINE 138kV	144.1	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	143.6	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	143.5	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	143.2	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 52162-52166, SPS SPS-PECO, NAVAJ3 - NAVAJ4 115kV	142.9	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 52029-52045, SPS SPS-YOGS, Gaines Interchange - TENNECO 69kV	142.9	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54286-54287, AEPW WTU , AIRPORT - AMOCO TAP 69kV	142.8	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54284-54285, AEPW WTU , ESTELENE - CAREY 69kV	142.7	0	
ELK CITY - ELKCTY-6 230-( )kV, 54153 - WND 2	07WP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	142.7	0	
ELK CITY - MOREWOOD SW 138kV, 54121 - 56001,	07WP, 54121-54148, AEPW WESTERN , ELK CITY - CLINTON JUNCTION 138kV	105.4	93	12/1/2007
ELK CITY 69kV, 54122 - 55897,	07SP, 56027-56088, WFEC AEP-CS , PINE RIDGE - WASHITA 69kV	153.3	0	7/1/2007

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 69kV, 54122 - 55897,	07SP, 56003-56027, WFEC AEP-CS , MOUNTAIN VIEW - PINE RIDGE 69kV	144.7	0	7/1/2007
ELK CITY 69kV, 54122 - 55897	07SP, 54111-54158, AEPW WESTERN , ALTUS JCT TAP - TAMARAC TAP 138kV	141.6	0	
ELK CITY 69kV, 54122 - 55897	07SP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	134.5	0	
ELK CITY 69kV, 54122 - 55897	07SP, 54289-54290-54305, AEPW WTU , CHILDRESS 138-69kV	131.0	0	
ELK CITY 69kV, 54122 - 55897	07SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	129.1	0	
ELK CITY 69kV, 54122 - 55897	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	105.6	0	
ELK CITY 69kV, 54122 - 55897	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	105.5	0	
ESTELENE - CAREY 69kV, 54284 - 54285,	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	100.2	147	7/1/2007
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153,	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	152.8	0	7/1/2007

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, 50827 - 54153,	07WP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	151.9	0	7/1/2007
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	151.3	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	15SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	149.9	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 51419-51733, SPS SPS-CNPL, Plant X Interchange - Sundown Interchange 230kV	149.9	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 51111-51419, SPS SPS-CLHF - SPS SPS-CNPL, Deaf Smith Interchange - Plant X Interchange 230kV	149.5	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 54131-54901, AEPW WESTERN - OKGE METRO , LAWTON EASTSIDE - CIMARRON 345kV	149.1	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	149.0	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 54140-54208, AEPW WESTERN , SOUTHWEST STATION - SOUTHWESTERN STATION #3 138-24kV	148.9	0	
Grapevine Interchange - ELK CITY 230kV, 50827 - 54153	07WP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	148.8	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 - Kirby 115kV, 50826 - 50932,	06AP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	142.8	9	7/1/2007
Grapevine Interchange - Kirby 115kV, 50826 - 50932	07SP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	107.3	128	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	07SP, 54290-54296, AEPW WTU , CHILDRESS - LAKE PAULINE 138kV	107.2	128	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	07SP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	106.3	131	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	07SP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	104.4	137	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	07SP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	104.2	137	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	102.6	143	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	101.1	146	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	100.9	147	
Grapevine Interchange - Kirby 115kV, 50826 - 50932	06AP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	100.2	149	

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, 50826 - 50827,	06AP, 50827-50915, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Nichols Station 230kV	273.0	0	7/1/2007
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	138.9	34	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	138.7	34	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	138.2	23	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	138.2	23	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	137.6	25	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	137.6	27	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	136.8	28	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	136.2	32	
Grapevine Interchange 230-115kV, 50826 - 50827	06AP, 50842-50914, SPS SPS-OKLA - SPS SPS-AMA , Steer Water Wind Gen - Nichols Station 115kV	127.9	47	

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)
Greensburg - Judson Large 115kV, 58764 - 58771,	07WP, 58794-58795, WEPL , Spearville 230-115kV	181.8	0	7/1/2007
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58792-58796, WEPL , Seward - St John 115kV	180.9	0	
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	178.9	0	
Greensburg - Judson Large 115kV, 58764 - 58771	06AP, 58779-58795, WEPL , Mullergren - Spearville 230kV	178.6	0	
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58794-58871, WEPL , Spearville - North Judson Large 115kV	178.5	0	
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58794-58795, WEPL , Spearville 230-115kV	175.3	0	
Greensburg - Judson Large 115kV, 58764 - 58771	07WP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	174.5	0	
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58766-58778, WEPL , Great Bend Tap - Mullergren 115kV	173.2	0	
Greensburg - Judson Large 115kV, 58764 - 58771	15SP, 58766-58792, WEPL , Great Bend Tap - Seward 115kV	173.1	0	
Greensburg - Judson Large 115kV, 58764 - 58771	07WP, 58778-58779, WEPL , Mullergren 230-115kV	171.9	0	
Greensburg - Sun City 115kV, 58764 - 58797,	06AP, 58779-58795, WEPL , Mullergren - Spearville 230kV	106.5	34	7/1/2007
Greensburg - Sun City 115kV, 58764 - 58797	15SP, 58792-58796, WEPL , Seward - St John 115kV	101.9	108	
Greensburg - Sun City 115kV, 58764 - 58797	15SP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	100.6	141	
Greensburg - Sun City 115kV, 58764 - 58797	15SP, 58794-58871, WEPL , Spearville - North Judson Large 115kV	100.5	143	

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)
GYPSUM - RUSSELL 69kV, 55929 - 56042,	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	210.3	0	7/1/2007
GYPSUM - RUSSELL 69kV, 55929 - 56042	15SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	191.5	0	
GYPSUM - RUSSELL 69kV, 55929 - 56042	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	184.9	0	
GYPSUM - RUSSELL 69kV, 55929 - 56042	06AP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	110.1	104	
GYPSUM - RUSSELL 69kV, 55929 - 56042	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	102.9	133	

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)
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532,	06AP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	165.8	0	7/1/2007
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	07SP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	142.9	0	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	06AP, 51435-51533, SPS SPS-CNPL, Tolk Interchange - Tuco Interchange 230kV	137.5	0	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	07SP, 51435-51533, SPS SPS-CNPL, Tolk Interchange - Tuco Interchange 230kV	123.6	0	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	06AP, 51419-51733, SPS SPS-CNPL, Plant X Interchange - Sundown Interchange 230kV	111.7	0	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	06AP, 51733-51763, SPS SPS-CNPL, Sundown Interchange - Wolfforth Interchange 230kV	110.2	8	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	07SP, 51419-51733, SPS SPS-CNPL, Plant X Interchange - Sundown Interchange 230kV	105.3	56	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	15SP, 51366-51402, SPS SPS-CNPL, LH-COX - Hale Co Interchange 115kV	104.1	57	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	15SP, 51360-51366, SPS SPS-CNPL, COX Interchange - LH-COX 115kV	103.9	60	
Hale Co Interchange - Tuco Interchange 115kV, 51402 - 51532	06AP, 51532-51533, SPS SPS-CNPL, Tuco Interchange 230-115kV	100.3	143	

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, 51302 - 51310,	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	154.6	0	7/1/2007
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	114.9	0	
Happy Interchange - TULIAT 115kV, 51302 - 51310	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	113.6	0	
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	111.4	0	
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 50887-51419, SPS SPS-AMA - SPS SPS-CNPL, Potter County Interchange - Plant X Interchange 230kV	106.8	46	
Happy Interchange - TULIAT 115kV, 51302 - 51310	15SP, 51301-51307, SPS SPS-CNPL, Happy Interchange - SW-HAPP 69kV	103.6	74	
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	103.1	84	
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 51111-51419, SPS SPS-CLHF - SPS SPS-CNPL, Deaf Smith Interchange - Plant X Interchange 230kV	102.1	118	
Happy Interchange - TULIAT 115kV, 51302 - 51310	06AP, 51435-51533, SPS SPS-CNPL, Tolk Interchange - Tuco Interchange 230kV	101.2	129	

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)
Harper - Medicine Lodge 138kV, 58768 - 58774,	15SP, 58796-56624, WEPL - MIDW REG E-IL, St John - ST_JOHN 115kV	143.3	0	7/1/2007
Harper - Medicine Lodge 138kV, 58768 - 58774	07WP, 58796-56624, WEPL - MIDW REG E-IL, St John - ST_JOHN 115kV	142.0	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	07WP, 58794-58795, WEPL , Spearville 230-115kV	140.8	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 58760-58778, WEPL , East Hall Tap - Mullergren 115kV	139.5	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	138.7	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	138.7	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	138.3	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 58794-58871, WEPL , Spearville - North Judson Large 115kV	137.8	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	07WP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	137.0	0	
Harper - Medicine Lodge 138kV, 58768 - 58774	15SP, 54131-54901, AEPW WESTERN - OKGE METRO , LAWTON EASTSIDE - CIMARRON 345kV	137.0	0	
HASTNG - Van Buren 1 Tap 69kV, 50949 - 50961,	15SP, 50937-50938, SPS SPS-AMA , Northwest Interchange 115-69kV	104.4	0	6/1/2011

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)
JERICHO - CLARENDON 69kV, 54277 - 54278,	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	121.3	0	7/1/2007
JERICHO - CLARENDON 69kV, 54277 - 54278	15SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	116.3	0	
JERICHO - CLARENDON 69kV, 54277 - 54278	07SP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	115.8	41	
JERICHO - CLARENDON 69kV, 54277 - 54278	07SP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	115.6	46	
JERICHO - CLARENDON 69kV, 54277 - 54278	07SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	112.2	59	
JERICHO - CLARENDON 69kV, 54277 - 54278	07SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	109.3	78	

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)
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2,	07SP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	170.7	0	7/1/2007
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	170.4	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	169.8	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	169.7	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	168.2	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	165.2	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	165.0	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	15SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	163.5	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	161.0	0	
JERICHO - JERIC2WT 115-( )kV, 54276 - WND 2	07SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	157.4	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)
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1,	07SP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	146.9	0	7/1/2007
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	07SP, 54292-54293, AEPW WTU , WELLINGTON - SHAMROCK 138kV	146.5	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	07SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	145.9	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	15SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	145.2	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	07SP, 54290-54291, AEPW WTU , CHILDRESS - HOLLIS TAP 138kV	144.5	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	06AP, 50838-50932, SPS SPS-OKLA - SPS SPS-AMA , MCLELLN - Kirby 115kV	143.0	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	06AP, 50838-50840, SPS SPS-OKLA, MCLELLN - McLean Rural 115kV	142.7	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	06AP, 54294-54295-54302, AEPW WTU , SHAMROCK 115-69kV	142.3	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	06AP, 50840-54295, SPS SPS-OKLA - AEPW WTU , McLean Rural - SHAMROCK 115kV	142.2	0	
JERICHO - JERIC2WT 69-( )kV, 54277 - WND 1	06AP, 54293-54294-54301, AEPW WTU , SHAMROCK 138-69kV	138.3	0	
Kress Interchange - Hale Co Interchange 115kV, 51316 - 51402,	06AP, 51321-51533, SPS SPS-CNPL, Swisher County Interchange - Tuco Interchange 230kV	105.9	27	7/1/2007
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896,	07WP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	302.9	0	7/1/2007

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 - ELDORADO 69kV, 54297 - 55896,	15SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	283.7	0	7/1/2007
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	07SP, 54296-56043, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - RUSSELL 138kV	277.0	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	06AP, 54111-56043, AEPW WESTERN - WFEC AEP-KP , ALTUS JCT TAP - RUSSELL 138kV	164.0	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	07WP, 56445-56448, SUNC SEPC , GARDEN CITY - HOLCOMB 115kV	123.6	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	07SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	115.5	42	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	15SP, 56429-56555, SUNC WHEATLAN - MIDW REG E-IL, MINGO - COLBY 115kV	114.9	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	15SP, 56392-56396, SUNC PIONEER , PIONEER TAP - SANT T 115kV	114.5	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	15SP, 56390-56391-56251, SUNC PIONEER , PIONEER 115-69kV	114.5	0	
LAKE PAULINE - ELDORADO 69kV, 54297 - 55896	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	114.3	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043,	06AP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	138.8	0	7/1/2007

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, 54296 - 56043,	07WP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	135.5	0	7/1/2007
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	134.3	26	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	06AP, 54297-55896, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - ELDORADO 69kV	134.0	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	06AP, 55895-55896, WFEC AEP-KP , ELDORADO JCT - ELDORADO 69kV	132.4	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	07WP, 54297-55896, AEPW WTU - WFEC AEP-KP , LAKE PAULINE - ELDORADO 69kV	130.9	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	07WP, 55895-55896, WFEC AEP-KP , ELDORADO JCT - ELDORADO 69kV	129.6	2	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	06AP, 55895-55929, WFEC AEP-KP , ELDORADO JCT - GYPSUM 69kV	129.3	0	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	15SP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	127.6	5	
LAKE PAULINE - RUSSELL 138kV, 54296 - 56043	06AP, 50826-50827, SPS SPS-OKLA, Grapevine Interchange 230-115kV	127.5	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)
LE-WAIT 115-69kV, 52350 - 52441,	15SP, 56429-56555, SUNC WHEATLAN - MIDW REG E-IL, MINGO - COLBY 115kV	124.6	0	7/1/2007
LE-WAIT 115-69kV, 52350 - 52441	15SP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	124.6	0	
LE-WAIT 115-69kV, 52350 - 52441	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	124.5	0	
LE-WAIT 115-69kV, 52350 - 52441	15SP, 56392-56396, SUNC PIONEER , PIONEER TAP - SANT T 115kV	124.5	0	
LE-WAIT 115-69kV, 52350 - 52441	15SP, 56390-56391-56251, SUNC PIONEER , PIONEER 115-69kV	124.5	0	
LE-WAIT 115-69kV, 52350 - 52441	15SP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	124.5	0	
LE-WAIT 115-69kV, 52350 - 52441	07SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	101.6	0	
LE-WAIT 115-69kV, 52350 - 52441	07SP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	101.6	0	
LE-WAIT 115-69kV, 52350 - 52441	07SP, 54289-54290-54305, AEPW WTU , CHILDRESS 138-69kV	101.6	0	
Manhattan - MANHTP 115kV, 50978 - 51018,	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	120.9	0	6/1/2011
Manhattan - MANHTP 115kV, 50978 - 51018	15SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	112.4	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295,	15SP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	142.9	0	7/1/2007

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, 50840 - 54295,	07SP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	132.6	0	7/1/2007
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	132.2	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54284-54285, AEPW WTU , ESTELENE - CAREY 69kV	132.0	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54285-54286, AEPW WTU , CAREY - AIRPORT 69kV	131.7	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54286-54287, AEPW WTU , AIRPORT - AMOCO TAP 69kV	131.3	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 50826-50827, SPS SPS-OKLA, Grapevine Interchange 230-115kV	129.7	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54287-54289, AEPW WTU , AMOCO TAP - CHILDRESS 69kV	129.3	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	07SP, 54289-54290-54305, AEPW WTU , CHILDRESS 138-69kV	128.6	0	
McLean Rural - SHAMROCK 115kV, 50840 - 54295	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	125.6	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)
MCLELLN - Kirby 115kV, 50838 - 50932,	15SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	156.5	0	7/1/2007
MCLELLN - Kirby 115kV, 50838 - 50932	15SP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	154.7	0	
MCLELLN - Kirby 115kV, 50838 - 50932	15SP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	151.9	0	
MCLELLN - Kirby 115kV, 50838 - 50932	15SP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	151.5	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	149.9	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	149.9	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	149.9	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	148.6	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	147.2	0	
MCLELLN - Kirby 115kV, 50838 - 50932	07SP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	146.3	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)
MCLELLN - McLean Rural 115kV, 50838 - 50840,	15SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	154.3	0	7/1/2007
MCLELLN - McLean Rural 115kV, 50838 - 50840	15SP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	152.6	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	15SP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	149.7	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	15SP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	149.4	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	147.9	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	147.9	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	147.9	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	146.6	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	145.1	0	
MCLELLN - McLean Rural 115kV, 50838 - 50840	07SP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	144.3	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)
Medicine Lodge - Sun City 115kV, 58773 - 58797,	06AP, 58779-58795, WEPL , Mullergren - Spearville 230kV	169.5	0	7/1/2007
Medicine Lodge - Sun City 115kV, 58773 - 58797	07WP, 58794-58795, WEPL , Spearville 230-115kV	166.7	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	07WP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	159.4	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	15SP, 58792-58796, WEPL , Seward - St John 115kV	158.3	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	07WP, 58778-58779, WEPL , Mullergren 230-115kV	156.4	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	15SP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	156.2	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	15SP, 58794-58871, WEPL , Spearville - North Judson Large 115kV	156.0	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	07WP, 58792-58796, WEPL , Seward - St John 115kV	155.8	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	07WP, 58778-58777, WEPL , Mullergren - A. M. Mullergren Generator 115-13.8kV	153.0	0	
Medicine Lodge - Sun City 115kV, 58773 - 58797	15SP, 58794-58795, WEPL , Spearville 230-115kV	152.9	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)
Medicine Lodge 138-115kV, 58773 - 58774,	07WP, 58796-56624, WEPL - MIDW REG E-IL, St John - ST_JOHN 115kV	148.9	0	7/1/2007
Medicine Lodge 138-115kV, 58773 - 58774	07WP, 58794-58795, WEPL , Spearville 230-115kV	145.1	0	
Medicine Lodge 138-115kV, 58773 - 58774	07WP, 58773-58787, WEPL , Medicine Lodge - Pratt 115kV	142.4	0	
Medicine Lodge 138-115kV, 58773 - 58774	07WP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	142.4	0	
Medicine Lodge 138-115kV, 58773 - 58774	15SP, 58796-56624, WEPL - MIDW REG E-IL, St John - ST_JOHN 115kV	141.8	0	
Medicine Lodge 138-115kV, 58773 - 58774	15SP, 58760-58778, WEPL , East Hall Tap - Mullergren 115kV	139.9	0	
Medicine Lodge 138-115kV, 58773 - 58774	15SP, 58773-58817, WEPL , Medicine Lodge 115-34.5kV	139.5	0	
Medicine Lodge 138-115kV, 58773 - 58774	07WP, 58760-58778, WEPL , East Hall Tap - Mullergren 115kV	139.2	0	
Medicine Lodge 138-115kV, 58773 - 58774	07WP, 58773-58817, WEPL , Medicine Lodge 115-34.5kV	138.7	0	
Medicine Lodge 138-115kV, 58773 - 58774	15SP, 58771-58871, WEPL , Judson Large - North Judson Large 115kV	138.6	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)
Mullergren - Spearville 230kV, 58779 - 58795,	15SP, 56362-56433, SUNC LANE-SCO - SUNC WHEATLAN, MANNING TAP - SCOTT CITY 115kV	123.6	0	7/1/2007
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 56360-56362, SUNC LANE-SCO, DIGHTON TAP - MANNING TAP 115kV	122.3	0	
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	122.2	0	
Mullergren - Spearville 230kV, 58779 - 58795	07SP, 58764-58771, WEPL , Greensburg - Judson Large 115kV	121.2	0	
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 56359-56360, SUNC LANE-SCO, BEELER - DIGHTON TAP 115kV	120.0	0	
Mullergren - Spearville 230kV, 58779 - 58795	07SP, 58764-58797, WEPL , Greensburg - Sun City 115kV	118.9	0	
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 56359-56456, SUNC LANE-SCO - SUNC SEPC , BEELER - NESS CITY 115kV	118.8	0	
Mullergren - Spearville 230kV, 58779 - 58795	07SP, 58773-58797, WEPL , Medicine Lodge - Sun City 115kV	118.6	0	
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	117.0	0	
Mullergren - Spearville 230kV, 58779 - 58795	15SP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	117.0	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)
Nichols Station - Whitaker 115kV, 50914 - 50922,	15SP, 50907-50957, SPS SPS-AMA , Harrington Station - East Plant Interchange 230kV	126.2	0	7/1/2007
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50956-50957, SPS SPS-AMA , East Plant Interchange 230-115kV	126.1	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50908-50914, SPS SPS-AMA , Cherry - Nichols Station 115kV	125.6	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50908-50938, SPS SPS-AMA , Cherry - Northwest Interchange 115kV	122.5	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50907-51021, SPS SPS-AMA , Harrington Station - Randall County Interchange 230kV	121.3	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 51020-51021, SPS SPS-AMA , Randall County Interchange 230-115kV	120.8	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	112.2	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50928-50932, SPS SPS-AMA , Conway - Kirby 115kV	109.0	0	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 50751-50915, SPS SPS-OKLA - SPS SPS-AMA , Hutchinson Co. Interchange - Nichols Station 230kV	107.7	49	
Nichols Station - Whitaker 115kV, 50914 - 50922	15SP, 54291-54292, AEPW WTU , HOLLIS TAP - WELLINGTON 138kV	105.5	93	
Nichols Station - YARNELL 115kV, 50914 - 50926,	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	125.7	90	7/1/2007
Nichols Station - YARNELL 115kV, 50914 - 50926	06AP, 50826-50827, SPS SPS-OKLA, Grapevine Interchange 230-115kV	108.3	122	

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, 51014 - 51080,	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	155.1	0	7/1/2007
Osage Switching Station - Canyon East 115kV, 51014 - 51080	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	145.4	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	141.4	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51106-51110, SPS SPS-CLHF, Hereford Interchange - Deaf Smith Interchange 115kV	121.6	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 50887-50993, SPS SPS-AMA , Potter County Interchange - Bushland Interchange 230kV	116.6	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51110-51111, SPS SPS-CLHF, Deaf Smith Interchange 230-115kV CKT 2	111.2	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51110-51111, SPS SPS-CLHF, Deaf Smith Interchange 230-115kV	111.2	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	06AP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	110.7	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51020-51082, SPS SPS-AMA - SPS SPS-CLHF, Randall County Interchange - PALODU 115kV	110.7	0	
Osage Switching Station - Canyon East 115kV, 51014 - 51080	15SP, 51082-51302, SPS SPS-CLHF - SPS SPS-CNPL, PALODU - Happy Interchange 115kV	110.2	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)
Osage Switching Station - MANHTP 115kV, 51014 - 51018,	15SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	123.1	0	7/1/2007
Osage Switching Station - MANHTP 115kV, 51014 - 51018	15SP, 50964-51014, SPS SPS-AMA , Pierce Tap - Osage Switching Station 115kV	113.8	0	
Osage Switching Station - MANHTP 115kV, 51014 - 51018	07SP, 50956-50964, SPS SPS-AMA , East Plant Interchange - Pierce Tap 115kV	104.3	0	
PALODU - Happy Interchange 115kV, 51082 - 51302,	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	167.5	0	7/1/2007
PALODU - Happy Interchange 115kV, 51082 - 51302	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	161.7	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	140.3	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51396-51418, SPS SPS-CNPL, LC-SOL - Plant X Interchange 115kV	129.3	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	129.2	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51388-51396, SPS SPS-CNPL, Lamton Interchange - LC-SOL 115kV	127.6	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51014-51080, SPS SPS-AMA - SPS SPS-CLHF, Osage Switching Station - Canyon East 115kV	127.4	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51419-51733, SPS SPS-CNPL, Plant X Interchange - Sundown Interchange 230kV	126.4	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51402-51418, SPS SPS-CNPL, Hale Co Interchange - Plant X Interchange 115kV	125.7	0	
PALODU - Happy Interchange 115kV, 51082 - 51302	15SP, 51078-51080, SPS SPS-CLHF, Canyon West - Canyon East 115kV	125.7	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)
Pierce Tap - Osage Switching Station 115kV, 50964 - 51014,	15SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	124.0	0	7/1/2007
Pierce Tap - Osage Switching Station 115kV, 50964 - 51014	15SP, 50978-51018, SPS SPS-AMA , Manhattan - MANHTP 115kV	113.9	0	
Pierce Tap - Osage Switching Station 115kV, 50964 - 51014	07SP, 50956-50978, SPS SPS-AMA , East Plant Interchange - Manhattan 115kV	101.6	118	
Randall County Interchange - PALODU 115kV, 51020 - 51082,	07SP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	169.8	0	7/1/2007
Randall County Interchange - PALODU 115kV, 51020 - 51082	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	162.9	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51320-51321, SPS SPS-CNPL, Swisher County Interchange 230-115kV	145.6	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51316-51320, SPS SPS-CNPL, Kress Interchange - Swisher County Interchange 115kV	145.6	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	142.6	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51396-51418, SPS SPS-CNPL, LC-SOL - Plant X Interchange 115kV	131.7	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	07SP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	131.4	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51388-51396, SPS SPS-CNPL, Lamton Interchange - LC-SOL 115kV	130.0	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51014-51080, SPS SPS-AMA - SPS SPS-CLHF, Osage Switching Station - Canyon East 115kV	129.7	0	
Randall County Interchange - PALODU 115kV, 51020 - 51082	15SP, 51419-51733, SPS SPS-CNPL, Plant X Interchange - Sundown Interchange 230kV	128.8	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 230-115kV, 51020 - 51021,	07SP, 50915-51041, SPS SPS-AMA , Nichols Station - Amarillo S Interchange 230kV	109.4	0	7/1/2007
Roswell Interchange 115-69kV, 52093 - 52094,	15SP, 56429-56555, SUNC WHEATLAN - MIDW REG E-IL, MINGO - COLBY 115kV	104.6	0	6/1/2011
Roswell Interchange 115-69kV, 52093 - 52094	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	104.6	0	
Roswell Interchange 115-69kV, 52093 - 52094	15SP, 54296-54297-54304, AEPW WTU , LAKE PAULINE 138-69kV	104.6	0	
Roswell Interchange 115-69kV, 52093 - 52094	15SP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	104.6	0	
Seven Rivers Interchange 115-69kV, 52294 - 52295,	15SP, 56429-56555, SUNC WHEATLAN - MIDW REG E-IL, MINGO - COLBY 115kV	116.5	0	6/1/2011

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)
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2,	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	130.4	0	7/1/2007
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	130.4	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	130.2	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	129.1	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	129.0	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	128.8	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	128.8	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	126.1	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	06AP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	125.6	0	
SHAMROCK - SHAMRCK1 115-( )kV, 54295 - WND 2	07SP, 54286-54287, AEPW WTU , AIRPORT - AMOCO TAP 69kV	125.0	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)
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1,	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	132.5	0	7/1/2007
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	132.5	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	132.2	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	131.2	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	131.0	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	130.8	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	130.8	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	127.6	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	126.8	0	
SHAMROCK - SHAMRCK1 69-( )kV, 54294 - WND 1	06AP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	126.1	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)
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2,	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	130.6	0	7/1/2007
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	130.6	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	130.2	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	128.9	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	128.7	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	128.5	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	128.5	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	124.9	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	123.8	0	
SHAMROCK - SHAMRCK2 138-( )kV, 54293 - WND 2	06AP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	123.2	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)
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1,	06AP, 54276-54277-54303, AEPW WTU , JERICHO 115-69kV	126.2	0	7/1/2007
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 50932-54276, SPS SPS-AMA - AEPW WTU , Kirby - JERICHO 115kV	126.2	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54277-54278, AEPW WTU , JERICHO - CLARENDON 69kV	125.9	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54278-54279, AEPW WTU , CLARENDON - CLARENDON REA 69kV	124.8	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54275-54281, AEPW WTU , NW Memphis - NORTH MEMPHIS REA 69kV	124.8	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54280-54281, AEPW WTU , HEDLEY - NORTH MEMPHIS REA 69kV	124.6	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54279-54280, AEPW WTU , CLARENDON REA - HEDLEY 69kV	124.6	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54275-54282, AEPW WTU , NW Memphis - MEMPHIS 69kV	121.5	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54282-54283, AEPW WTU , MEMPHIS - RED RIVER ARSENAL 69kV	120.7	0	
SHAMROCK - SHAMRCK2 69-( )kV, 54294 - WND 1	06AP, 54283-54284, AEPW WTU , RED RIVER ARSENAL - ESTELENE 69kV	120.1	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)
Spearville - SPEARVL 230-( )kV, 58795 - WND 1,	07SP, 58771-58770, WEPL , Judson Large - Judson Large Generator 115-13.8kV	118.1	0	7/1/2007
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 50596-50600, SPS SPS-OKLA, Texas County Interchange - Texas County Interchange PHSF 115kV	107.4	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	107.3	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 50600-58772, SPS SPS-OKLA - WEPL , Texas County Interchange PHSF - East Liberal 115kV	107.3	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 56362-56433, SUNC LANE-SCO - SUNC WHEATLAN, MANNING TAP - SCOTT CITY 115kV	106.4	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 56360-56362, SUNC LANE-SCO, DIGHTON TAP - MANNING TAP 115kV	106.2	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 58752-58759, WEPL , Cimarron River Tap - Cudahy 115kV	105.9	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 56359-56360, SUNC LANE-SCO, BEELER - DIGHTON TAP 115kV	105.5	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 56359-56456, SUNC LANE-SCO - SUNC SEPC , BEELER - NESS CITY 115kV	105.2	0	
Spearville - SPEARVL 230-( )kV, 58795 - WND 1	07SP, 58759-58771, WEPL , Cudahy - Judson Large 115kV	104.3	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)
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2,	07SP, 58771-58770, WEPL , Judson Large - Judson Large Generator 115-13.8kV	118.4	0	7/1/2007
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	107.6	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 50596-50600, SPS SPS-OKLA, Texas County Interchange - Texas County Interchange PHSF 115kV	107.2	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 50600-58772, SPS SPS-OKLA - WEPL , Texas County Interchange PHSF - East Liberal 115kV	107.1	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 56362-56433, SUNC LANE-SCO - SUNC WHEATLAN, MANNING TAP - SCOTT CITY 115kV	106.8	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 56360-56362, SUNC LANE-SCO, DIGHTON TAP - MANNING TAP 115kV	106.5	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 58752-58759, WEPL , Cimarron River Tap - Cudahy 115kV	106.1	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 56359-56360, SUNC LANE-SCO, BEELER - DIGHTON TAP 115kV	105.8	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 56359-56456, SUNC LANE-SCO - SUNC SEPC , BEELER - NESS CITY 115kV	105.5	0	
SPEARVILLE - SPEARVL 345-( )kV, 56469 - WND 2	07SP, 58759-58771, WEPL , Cudahy - Judson Large 115kV	104.5	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)
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1,	15SP, 58771-58770, WEPL , Judson Large - Judson Large Generator 115-13.8kV	116.7	0	7/1/2007
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	106.5	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 58752-58759, WEPL , Cimarron River Tap - Cudahy 115kV	105.6	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 56359-56456, SUNC LANE-SCO - SUNC SEPC , BEELER - NESS CITY 115kV	104.5	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 56360-56362, SUNC LANE-SCO, DIGHTON TAP - MANNING TAP 115kV	104.3	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 56359-56360, SUNC LANE-SCO, BEELER - DIGHTON TAP 115kV	104.3	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 58759-58771, WEPL , Cudahy - Judson Large 115kV	104.2	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	07WP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	104.1	0	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 58778-58781, WEPL , Mullergren - North West Great Bend 115kV	102.7	23	
Spearville - SPRV-1 7 230-( )kV, 58795 - WND 1	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	102.7	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)
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2,	15SP, 58771-58770, WEPL , Judson Large - Judson Large Generator 115-13.8kV	117.2	0	7/1/2007
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	107.1	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 58752-58759, WEPL , Cimarron River Tap - Cudahy 115kV	105.8	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 56359-56456, SUNC LANE-SCO - SUNC SEPC , BEELER - NESS CITY 115kV	104.9	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 56360-56362, SUNC LANE-SCO, DIGHTON TAP - MANNING TAP 115kV	104.8	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 56359-56360, SUNC LANE-SCO, BEELER - DIGHTON TAP 115kV	104.8	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 58759-58771, WEPL , Cudahy - Judson Large 115kV	104.4	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	07WP, 56456-56607, SUNC SEPC - MIDW REG E-IL, NESS CITY 115kV	104.2	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	102.9	0	
SPEARVILLE - SPRV-1 7 345-( )kV, 56469 - WND 2	15SP, 58778-58781, WEPL , Mullergren - North West Great Bend 115kV	102.7	27	
Texas County Interchange - Texas County Interchange PHSF 115kV, 50596 - 50600,	15SP, 56448-56447, SUNC SEPC , HOLCOMB - HOLCOMB GENERATOR 115-22kV	103.0	0	6/1/2011
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772,	15SP, 56448-56447, SUNC SEPC , HOLCOMB - HOLCOMB GENERATOR 115-22kV	125.6	0	7/1/2007

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, 50600 - 58772,	15SP, 58771-58770, WEPL , Judson Large - Judson Large Generator 115-13.8kV	120.1	0	7/1/2007
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	15SP, 50858-59998, SPS SPS-AMA - WECC WECC , Finney Station - Lamar DC 345kV	118.5	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	15SP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	118.4	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	15SP, 56392-56393, SUNC PIONEER , PIONEER TAP - PLYMELL 115kV	117.2	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	06AP, 51203-59995, SPS SPS-CLHF - WECC WECC , Roosevelt County Interchange - PNM Blackwater DC 230kV	116.9	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	07WP, 56393-56448, SUNC PIONEER - SUNC SEPC , PLYMELL - HOLCOMB 115kV	115.2	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	06AP, 56449-56469, SUNC SEPC , HOLCOMB - SPEARVILLE 345kV	114.8	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	06AP, 56469-58795-56468, SUNC SEPC - WEPL , SPEARVILLE 345-230kV	114.5	0	
Texas County Interchange PHSF - East Liberal 115kV, 50600 - 58772	07WP, 56392-56393, SUNC PIONEER , PIONEER TAP - PLYMELL 115kV	114.5	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)
TULIAT - Kress Interchange 115kV, 51310 - 51316,	06AP, 51041-51321, SPS SPS-AMA - SPS SPS-CNPL, Amarillo S Interchange - Swisher County Interchange 230kV	150.9	0	7/1/2007
TULIAT - Kress Interchange 115kV, 51310 - 51316	06AP, 50993-51111, SPS SPS-AMA - SPS SPS-CLHF, Bushland Interchange - Deaf Smith Interchange 230kV	111.1	0	
TULIAT - Kress Interchange 115kV, 51310 - 51316	06AP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	107.9	0	
TULIAT - Kress Interchange 115kV, 51310 - 51316	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	105.7	26	
TULIAT - Kress Interchange 115kV, 51310 - 51316	06AP, 50887-51419, SPS SPS-AMA - SPS SPS-CNPL, Potter County Interchange - Plant X Interchange 230kV	103.1	102	

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)
Whitaker - East Plant Interchange 115kV, 50922 - 50956,	15SP, 50907-50957, SPS SPS-AMA , Harrington Station - East Plant Interchange 230kV	118.6	0	6/1/2011
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50956-50957, SPS SPS-AMA , East Plant Interchange 230-115kV	118.5	0	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50908-50914, SPS SPS-AMA , Cherry - Nichols Station 115kV	118.1	0	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50908-50938, SPS SPS-AMA , Cherry - Northwest Interchange 115kV	115.1	0	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50907-51021, SPS SPS-AMA , Harrington Station - Randall County Interchange 230kV	113.8	0	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 51020-51021, SPS SPS-AMA , Randall County Interchange 230-115kV	113.3	0	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 51435-51441, SPS SPS-CNPL, Tolk Interchange - Tolk 1 230-24kV	104.8	79	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50928-50932, SPS SPS-AMA , Conway - Kirby 115kV	101.7	86	
Whitaker - East Plant Interchange 115kV, 50922 - 50956	15SP, 50751-50915, SPS SPS-OKLA - SPS SPS-AMA , Hutchinson Co. Interchange - Nichols Station 230kV	100.4	145	
YARNELL - Conway 115kV, 50926 - 50928,	06AP, 50826-50932, SPS SPS-OKLA - SPS SPS-AMA , Grapevine Interchange - Kirby 115kV	126.1	89	7/1/2007
YARNELL - Conway 115kV, 50926 - 50928	06AP, 50826-50827, SPS SPS-OKLA, Grapevine Interchange 230-115kV	108.6	121	

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, 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 July 1, 2007. 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 150MW and location, additional criteria violations will occur on the existing AEPW, SPS, SUNC, WEPL and WFEC facilities under steady state conditions in the peak seasons. Given the contingency analyses in this area with the Customer exporting generation, steady-state solutions were not obtained for outages of SPS' eastern and northern 345kV lines. In addition, there were no solutions for a multitude of other contingencies at various voltages in all cases. Therefore, the ATC associated with this interconnection is 0MW. These contingency analyses will have to be re-evaluated as part of a TSR with additional transmission facilities between SPS and the remainder of SPP. Given the number of overloaded facilities in all cases, the facilities overloaded in the 2010 Summer and Winter Peak cases are not included in this report.

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. Without a contingency where valid solutions were obtained while modeling GE turbines at the Customer site, 40.8MVAR is required on a steady state basis to achieve adequate voltage levels. This customer must install 1 switched 115kV 10.8MVAR bank in the Customer's 115-34.5kV Substation. A 30MVAR SVC is required at 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 l hereafter referred to as NERC Table l) 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, Sunflower Electric Power Corporation, West Plains Energy 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.

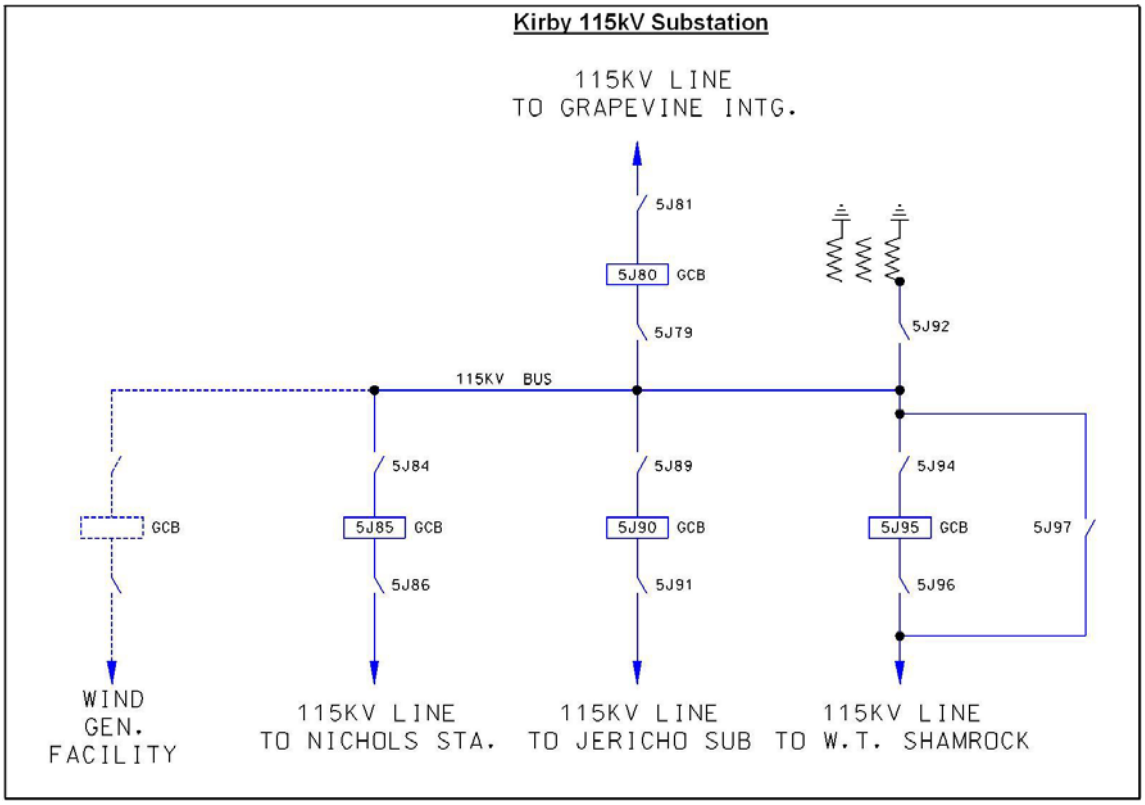
Conclusion

The minimum cost of interconnecting the Customer project is estimated at $350,000 for SPS' interconnection Direct Assignment facilities listed in Table 1 excluding upgrades of other transmission facilities by AEPW, SPS, SUNC, WEPL and WFEC 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.

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 highest values of loading may be included in this table. Given the contingency analyses in this area with the Customer exporting generation, steady-state solutions were not obtained for outages of SPS' eastern and northern 345kV lines. In addition, there were no solutions for a multitude of other contingencies at various voltages in all cases. Therefore, the ATC associated with this interconnection is 0MW. These contingency analyses will have to be re-evaluated as part of a TSR with additional transmission facilities between SPS and the remainder of SPP.

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.



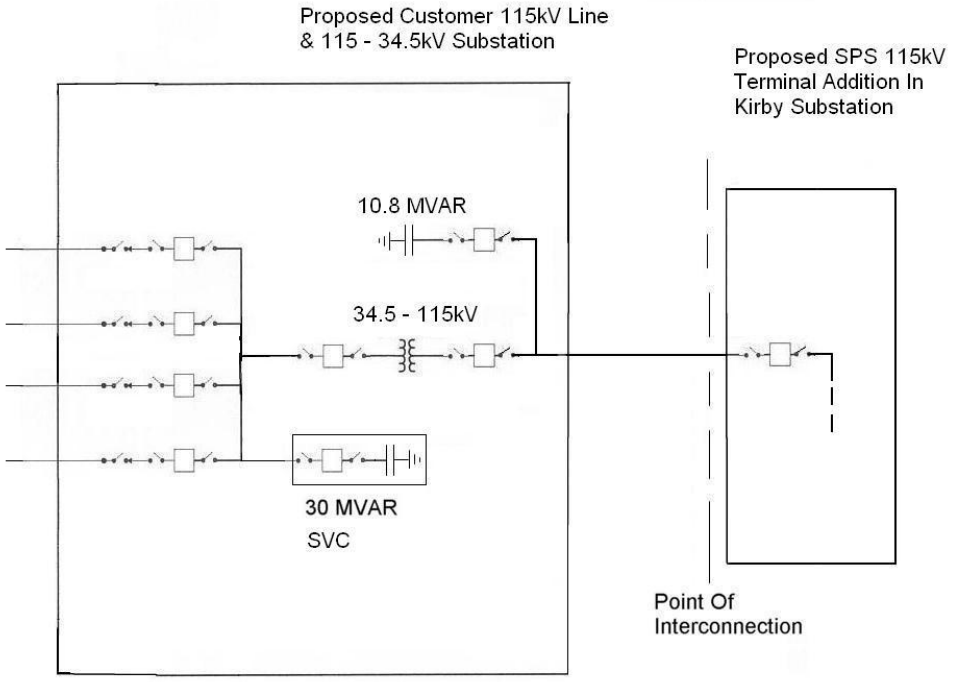


Figure 1: Proposed Interconnection
(Final substation design to be determined)

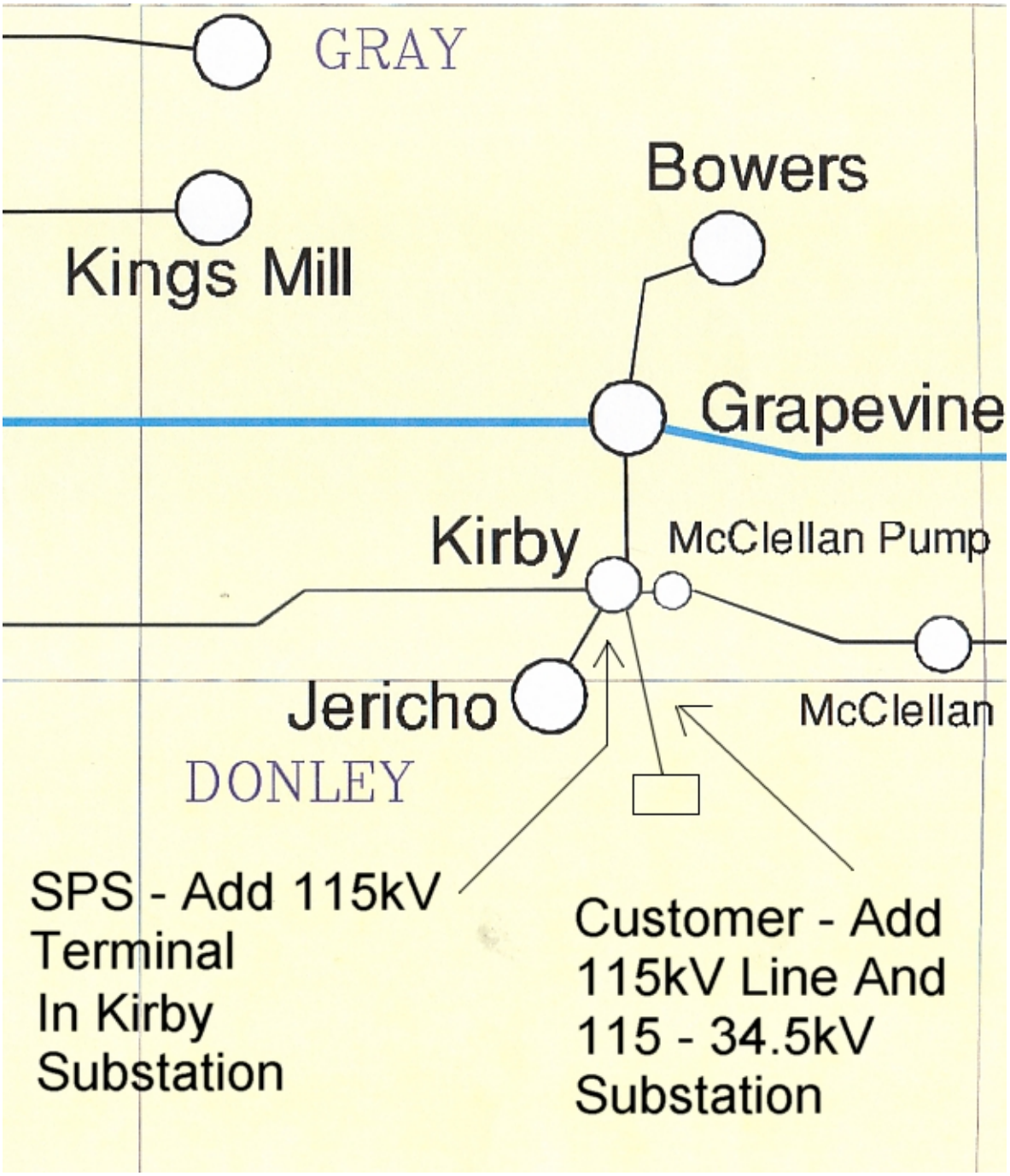


Figure 2: Map Of The Surrounding Area