



SPP

*Southwest
Power Pool*

*Preliminary
System Impact Study
SPP-2005-027-1P
For Transmission Service
Requested By
Sunflower Electric Cooperative*

From SECI to SPA

*For a Reserved Amount Of 200MW
From 6/1/2007
To 6/1/2017*

SPP Engineering, Tariff Studies

SPP IMPACT STUDY (SPP-2005-027-1P)

February 23, 2005

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System Impact Study

Sunflower Electric Cooperative has requested a system impact study for transmission service from SECI to Network Load in the SPA Control Area for 200 MW. The period of the service requested is from 6/1/2007 to 6/1/2017. The principal objective of this study is to identify system constraints on the SPP Regional Tariff System and potential system facility upgrades that may be necessary to provide the requested service.

This study was performed for the SECI to SPA request in order to provide preliminary results identifying facility upgrades that may be required for the requested service. The requested service was modeled as a transfer from the specified source in the SECI Control Area to marginally dispatched Network Resources in the SPA Control Area. The preliminary study is performed with only confirmed reservations included in the models. At the request of the customer, a SECI to SPS 150 MW transfer, a SECI to EDE 100 MW transfer, a SECI to SECI 50 MW transfer, and a SECI to AEPW/OKGE/WFEC 100 MW transfer were included in the models. The results of the transfer analyses are documented in Tables 1, 2, and 3 of the report. Table 1 summarizes the results of the Scenario 1 system impact analysis. Table 2 summarizes the results of the Scenario 2 system impact analysis. Table 3 summarizes the results of the Scenario 3 system impact analysis. The primary purpose of this preliminary study is to provide the customer with an estimated cost of the facility upgrades that may be required in order to accommodate the requested service. The preliminary study is performed by monitoring each facility at 90% of its rating.

Eight seasonal models were used to study the SECI to SPA request for the requested service period. The SPP 2004 Series Cases Update 2, 2005 April Minimum (05AP), 2005 Spring Peak (05G), 2005 Summer Shoulder (05SH), 2005 Fall Peak (05FA), 2007 Summer Peak (07SP), 2007/08 Winter Peak (07WP), 2010 Summer Peak (10SP), and 2010/11 Winter Peak (10WP) were used to study the impact of the request on the SPP system during the requested service period of 6/1/2007 to 6/1/2017. The chosen base case models were modified to reflect the most current modeling information. The cases were modified to reflect firm transfers during the requested service period that were not already included in the January 2004 base case series models. In order to have seasonal cases for the study that serve as a good proxy for future seasonal models not available from the SPP MDWG 2004 Series Cases, the 2005 and 2007 seasonal cases were modified to include planned SECI upgrades with in-service dates prior to the start date of the requested service. These included 115 kV line upgrades in the SECI area. From the eight seasonal models, three system scenarios were developed. Scenario 1 includes confirmed West to East transfers not already included in the January 2004 base case series models, SPS Exporting (including the Lamar HVDC Tie flowing from Lamar to SPS), and ERCOT exporting. Scenario 2 includes confirmed East to West transfers not already included in the January 2004 base case series models, SPS Importing (including the Lamar HVDC Tie flowing from Lamar to SPS), and ERCOT importing. Scenario 3 includes confirmed West to East transfers not already included in the January 2004 base case series models, SPS Importing (including the Lamar HVDC Tie flowing from Lamar to SPS), and ERCOT importing.

PTI's MUST First Contingency Incremental Transfer Capability (FCITC) DC analysis was used to study the request. The MUST options chosen to conduct the System Impact Study analysis can be found in Appendix A. The MUST option to convert MVA branch ratings to estimated MW ratings was used to partially compensate for reactive loading.

These study results are preliminary estimates only and are not intended for use in final determination of the granting of service. Any solutions, upgrades, and costs provided in the preliminary System Impact Study are planning estimates only.

SPP will also review the possibility of curtailment of previously confirmed service and/or the redispatch of units as an option for relieving the additional impacts on the SPP facilities caused by the SECI to SPA request. It is the responsibility of the customer to reach an agreement with the applicable party concerning the curtailment of confirmed service and the redispatch of units. The curtailment and redispatch requirements would be called upon prior to implementing NERC TLR Level 5a. These options will be evaluated as part of the Aggregate System Impact Study. The final upgrade solutions, cost assignments, available redispatch, and curtailment options will be determined upon the completion of the Aggregate System Impact Study and Facility Study. An Aggregate System Impact Study Agreement will be tendered prior to the close of the first open season, June 1, 2005.

Table 1 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 1

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05AP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	91.9	114.8	8.9780	58779 MULGREN6 230 58795 SPEARVL6 230 1	71	Solution Undetermined	TBD
05AP	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	83.2	106.9	39.5130	56451 MINGO 7 345 56465 SETAB 7 345 1	142	Solution Undetermined	TBD
05AP	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	83.1	106.7	39.5130	56451 MINGO 7 345 56465 SETAB 7 345 1	144	Solution Undetermined	TBD
05AP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	77.3	106.4	9.0620	56451 MINGO 7 345 64943 REDWILO3 345 1	156	Solution Undetermined	TBD
05AP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	80.1	102.2	35.0250	56451 MINGO 7 345 56465 SETAB 7 345 1	180	Solution Undetermined	TBD
05AP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	67.7	93.6	9.0620	56451 MINGO 7 345 64943 REDWILO3 345 1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	112.0	135.2	8.9740	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	334	93.1	108.4	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	91	Solution Undetermined	TBD
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	92.7	108.0	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	95	Solution Undetermined	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	86.7	106.0	5.9160	Unit:56751 WCGS U1 25.0 Id:1	138	Solution Undetermined	TBD
05G	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	87.8	104.3	8.3150	58779 MULGREN6 230 58795 SPEARVL6 230 1	148	Solution Undetermined	TBD
05G	WEPL-WEPL	58792 SEWARD 3 115 58796 ST-JOHN3 115 1	91	86.6	103.4	7.6490	56871 CIRCLE 6 230 58779 MULGREN6 230 1	159	Solution Undetermined	TBD
05G	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	142	90.4	102.0	8.2470	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	166	Solution Undetermined	TBD
05G	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	86.1	102.6	8.3150	58779 MULGREN6 230 58795 SPEARVL6 230 1	168	Solution Undetermined	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	91.6	96.1	14.4030	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	91.4	95.9	14.3700	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05G	SWPA-SPRM	52692 SPRGFLD5 161 59970 CLAY 5 161 1	167	53.5	90.5	30.8850	59954 SWPS 5 161 59961 JRPS 5 161 1	200	Replace disconnect switches at Springfield.	\$200,000
05G	AEPW-AEPW	53154 CHAMSPR5 161 53170 TONTITN5 161 1	275	93.4	95.6	3.0500	53154 CHAMSPR5 161 53195 FARMGTN5 161 1	200	AEPW has plans to upgrade NW Arkansas Area by 6/1/2007	
05G	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	75.7	92.8	5.9160	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	85.0	99.0	5.4360	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	81.1	95.4	22.5370	Unit:56651 JEC U1 26.0 Id:1	200	Solution Undetermined	TBD
05G	SPRM-SPRM	59921 MAIN 2 69 59922 GRAND 2 69 1	108	38.1	91.0	28.4380	59904 JRPS 26 9 59961 JRPS 5 161 1	200	Solution Undetermined	TBD
05G	NPPD-NPPD	64984 SWEET W3 345 66571 GR ISLD3 345 1	787	88.3	93.0	18.8050	64733 AXTELL 3 345 64984 SWEET W3 345 1	200	Non-SPP Third Party Limitation	
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	334	105.5	126.8	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	97.1	98.9	5.1480	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05G	WERE-WERE	57413 CIRCLE 3 115 57429 MOUNDRG3 115 1	91	70.3	91.9	9.8770	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	81.2	105.4	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	93.1	120.3	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	94.3	114.1	31.2440	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 1 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 1

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	105.1	126.4	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	100.4	102.5	5.8260	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	100.6	123.3	8.9220	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
05SH	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	334	86.6	101.6	24.9650	Unit:58770 JUD- LRG 113.8 Id:4	179	Solution Undetermined	TBD
05SH	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	86.2	101.1	24.9650	Unit:58770 JUD- LRG 113.8 Id:4	185	Solution Undetermined	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	94.6	99.2	14.6000	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	94.4	99.0	14.5670	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05SH	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	77.0	93.1	8.1300	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
05SH	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	75.0	91.1	8.1300	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
05SH	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	141	82.8	94.3	8.1190	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05SH	SPRM-SPRM	59969 BRKLNE 5 161 59984 BRKLNE 7 345 1	388	73.6	90.9	33.5950	59969 BRKLNE 5 161 59984 BRKLNE 7 345 2	200	Solution Undetermined	TBD
05SH	SPRM-SPRM	59969 BRKLNE 5 161 59984 BRKLNE 7 345 2	388	73.3	90.6	33.4870	59969 BRKLNE 5 161 59984 BRKLNE 7 345 1	200	Solution Undetermined	TBD
05SH	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	334	91.2	112.0	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	72.0	100.8	9.0450	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	82.9	102.0	30.3240	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	90.8	111.5	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	77	111.6	134.7	8.9290	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	92.6	107.5	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	99	Solution Undetermined	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	92.5	107.4	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	100	Solution Undetermined	TBD
05FA	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	91.8	108.0	8.1390	58779 MULGREN6 230 58795 SPEARVL6 230 1	102	Solution Undetermined	TBD
05FA	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	90.2	106.4	8.1390	58779 MULGREN6 230 58795 SPEARVL6 230 1	121	Solution Undetermined	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	87.1	107.5	6.3460	Unit:56751 WCGS U1 25.0 Id:1	127	Solution Undetermined	TBD
05FA	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	141	90.9	102.4	8.1260	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	159	Solution Undetermined	TBD
05FA	WEPL-WEPL	58792 SEWARD 3 115 58796 ST-JOHN3 115 1	91	84.4	100.8	7.4360	56871 CIRCLE 6 230 58779 MULGREN6 230 1	191	Solution Undetermined	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	76.3	94.4	6.3460	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	313	83.1	97.0	21.7970	Unit:56651 JEC U1 26.0 Id:1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	77	81.2	95.4	5.4840	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05FA	NPPD-NPPD	64984 SWEET W3 345 66571 GR ISLD3 345 1	787	87.0	91.8	19.1000	64733 AXTELL 3 345 64984 SWEET W3 345 1	200	Non-SPP Third Party Limitation	
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	106.8	127.6	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 1 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 1

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05FA	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	97.8	99.8	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	83.4	109.3	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	95.1	124.2	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	313	95.1	114.5	30.3380	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	106.7	127.5	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	115.8	117.9	5.8200	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	98.4	121.1	8.9200	58779 MULGREN6 230 58795 SPEARVL6 230 1	14	Solution Undetermined	TBD
07SP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	333	92.5	115.0	37.4290	56449 HOLCOMB7 345 56465 SETAB 7 345 1	67	Solution Undetermined	TBD
07SP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	336	91.9	114.2	37.4290	56449 HOLCOMB7 345 56465 SETAB 7 345 1	73	Solution Undetermined	TBD
07SP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	333	86.2	101.1	24.9560	Unit:58770 JUD- LRG 113.8 Id:4	185	Solution Undetermined	TBD
07SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	80.2	100.6	32.4250	56449 HOLCOMB7 345 56465 SETAB 7 345 1	194	Solution Undetermined	TBD
07SP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	336	85.6	100.5	24.9560	Unit:58770 JUD- LRG 113.8 Id:4	194	Solution Undetermined	TBD
07SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	389	82.9	100.5	34.2140	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	194	Solution Undetermined	TBD
07SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	389	82.6	100.2	34.1040	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	198	Solution Undetermined	TBD
07SP	SWPA-SPRM	52692 SPRGFLD5 161 59969 BRKLINE 5 161 1	377	84.5	90.2	10.6490	59955 JUNCTN 5 161 59969 BRKLINE 5 161 1	200	Solution Undetermined	TBD
07SP	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	75.4	91.1	7.8810	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
07SP	WERE-WERE	56765 HOYT 7 345 56766 JEC N 7 345 1	1075	95.4	97.3	10.5370	56766 JEC N 7 345 56770 MORRIS 7 345 1	200	Solution Undetermined	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	72.8	93.4	6.3410	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
07SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	94.9	97.7	3.1180	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
07SP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	68.7	94.7	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	78.5	107.8	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	108.6	110.7	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	124.5	147.3	8.9210	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	103.8	124.6	6.3380	Unit:56751 WCGS U1 25.0 Id:1	0	Solution Undetermined	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	77	110.9	134.0	8.9210	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	99.3	113.3	5.4790	Unit:56751 WCGS U1 25.0 Id:1	10	Solution Undetermined	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	68	90.3	108.8	6.3380	Unit:56751 WCGS U1 25.0 Id:1	105	Solution Undetermined	TBD

Table 1 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 1

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
07WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	706	86.0	90.2	14.5980	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
07WP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	335	83.9	98.8	24.9610	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
07WP	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	77.4	93.5	8.1330	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
07WP	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	76.0	92.1	8.1330	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
07WP	WERE-WERE	56765 HOYT 7 345 56766 JEC N 7 345 1	1076	93.4	95.4	10.5470	56766 JEC N 7 345 56770 MORRIS 7 345 1	200	Solution Undetermined	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	77	85.4	99.5	5.4790	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
07WP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	83.8	98.7	24.9610	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
07WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	392	79.4	95.9	32.3770	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
07WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	392	79.1	95.6	32.2730	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD
07WP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	335	93.7	114.5	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	68	95.9	122.3	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	110.0	139.7	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	316	85.7	104.9	30.3250	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	93.6	114.3	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	105.7	107.8	5.8790	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	100.5	123.4	8.9520	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
10SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	101.9	104.7	3.1110	57995 MONTROS5 161 96071 5CLINTN 161 1	0	Non-SPP Third Party Limitation	
10SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	316	88.3	109.2	33.0190	56449 HOLCOMB7 345 56465 SETAB 7 345 1	112	Solution Undetermined	TBD
10SP	SPRM-SPRM	59921 MAIN 2 69 59903 PHELPS 1 13.2 1	28	58.8	101.8	6.0000	Unit:59903 PHEL PS 113.2 Id:1	191	Solution Undetermined	TBD
10SP	SWPA-SPRM	52692 SPRGFLD5 161 59969 BRKLINE 5 161 1	372	93.2	96.0	5.1360	59955 JUNCTN 5 161 59969 BRKLINE 5 161 1	200	Solution Undetermined	TBD
10SP	GRRD-GRRD	54435 KERR GR5 161 54437 412SUB 5 161 1	337	91.2	93.5	3.8740	54450 GRDA1 7 345 53140 FLINTCR7 345 1	200	Reconductor 12.5 miles with 1590MCM ACSR	\$1,918,000
10SP	GRRD-GRRD	54437 412SUB 5 161 54514 KANSATP5 161 1	337	90.1	92.4	3.8740	54450 GRDA1 7 345 53140 FLINTCR7 345 1	200	Reconductor 9.7 miles with 1590MCM ACSR.	\$1,488,000
10SP	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	78.8	94.9	8.1110	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
10SP	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	76.3	92.4	8.1110	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
10SP	WERE-WERE	57374 SPHILPJ3 115 57438 WMCIPHER3 115 1	66	77.0	92.5	5.1300	56872 EMCIPHER6 230 56873 SUMMIT 6 230 1	200	Tear down double circuit, build single circuit with 1192.5 ACSR.	\$7,800,000
10SP	WEPL-WEPL	58752 CMRIVTP3 115 58754 CIM-PLT3 115 1	92	75.3	90.2	6.8550	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
10SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	76.3	90.5	5.5370	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	316	77.8	91.9	22.2600	Unit:56651 JEC U1 26.0 Id:1	200	Solution Undetermined	TBD
10SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	388	81.7	99.7	35.0030	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
10SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	388	81.4	99.4	34.8900	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD

Table 1 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 1

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
10SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	61.7	90.5	9.1130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	77	121.9	145.0	8.9460	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	106.7	129.8	8.9460	58779 MULGREN6 230 58795 SPEARVL6 230 1	0	Solution Undetermined	TBD
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	77	96.6	110.9	5.5300	Unit:56751 WCGS U1 25.0 Id:1	48	Solution Undetermined	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	91.0	111.8	6.3900	Unit:56751 WCGS U1 25.0 Id:1	87	Solution Undetermined	TBD
10WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	706	88.0	92.1	14.4770	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
10WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	706	87.8	91.9	14.4450	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
10WP	SWPA-SPRM	52692 SPRGFLD5 161 59970 CLAY 5 161 1	167	56.1	91.5	29.4600	59954 SWPS 5 161 59961 JRPS 5 161 1	200	See Previous Upgrade Specified For Facility	
10WP	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	78.0	94.1	8.1120	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
10WP	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	76.4	92.5	8.1120	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
10WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	96.2	98.3	5.8860	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	79.3	97.8	6.3900	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	81.5	95.7	5.5300	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	76.9	91.1	22.2580	Unit:56651 JEC U1 26.0 Id:1	200	Solution Undetermined	TBD
10WP	SPRM-SPRM	59969 BRKLNE 5 161 59984 BRKLNE 7 345 1	391	79.8	95.7	31.1880	59969 BRKLNE 5 161 59984 BRKLNE 7 345 2	200	Solution Undetermined	TBD
10WP	SPRM-SPRM	59969 BRKLNE 5 161 59984 BRKLNE 7 345 2	391	79.5	95.4	31.0880	59969 BRKLNE 5 161 59984 BRKLNE 7 345 1	200	Solution Undetermined	TBD
10WP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	249	91.6	94.2	3.1360	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
10WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	84.1	110.4	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	96.3	125.9	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	87.2	106.8	30.8900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
									This cost may be higher due to additional facilities whose solutions will be determined during the Facility Study process	\$*
									Total Cost with Facilities Monitored @ 90% Loading	\$11,406,000
									Total Cost with Facilities Monitored @ 100% Loading	\$-

Table 2 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 2

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05AP	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	87.0	108.3	35.6020	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WERE-WERE	57013 MOUND 4 138 *B340 MOUND10X 1 1	106	81.8	98.3	8.7320	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WERE-WERE	57413 CIRCLE 3 115 57429 MOUNDRG3 115 1	89	86.4	108.5	9.8880	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WERE-WERE	57429 MOUNDRG3 115 *B340 MOUND10X 1 1	106	81.6	98.1	8.7320	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	89.9	113.5	8.3660	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	101.7	128.3	8.3660	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	83.8	103.0	7.6090	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	318	81.8	101.4	31.2530	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	87.1	108.4	35.6020	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	57413 CIRCLE 3 115 57429 MOUNDRG3 115 1	91	93.4	108.5	6.8620	Unit:56751 WCGS U1 25.0 Id:1	88	Solution Undetermined	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	90.5	109.7	5.9160	Unit:56751 WCGS U1 25.0 Id:1	99	Solution Undetermined	TBD
05G	WERE-WERE	57013 MOUND 4 138 *B340 MOUND10X 1 1	108	89.5	100.6	5.9400	Unit:56751 WCGS U1 25.0 Id:1	189	Solution Undetermined	TBD
05G	WERE-WERE	57429 MOUNDRG3 115 *B340 MOUND10X 1 1	108	89.4	100.4	5.9400	Unit:56751 WCGS U1 25.0 Id:1	193	Solution Undetermined	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	90.8	95.3	14.4030	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	90.6	95.1	14.3700	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	79.0	94.3	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05G	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	76.2	92.2	8.0650	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05G	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	74.4	90.4	8.0650	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05G	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	142	81.8	93.4	8.2470	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	108.5	132.7	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	79.0	96.1	5.9160	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	80.2	94.1	5.4360	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58792 SEWARD 3 115 58796 ST-JOHN3 115 1	91	78.7	95.5	7.6490	56871 CIRCLE 6 230 58779 MULGREN6 230 1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	79.1	94.4	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05G	SPRM-SPRM	59921 MAIN 2 69 59922 GRAND 2 69 1	108	37.7	90.6	28.4380	59904 JRPS 26 9 59961 JRPS 5 161 1	200	Solution Undetermined	TBD

Table 2 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 2

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05G	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	91.9	93.7	5.1480	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	114.3	135.6	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	57013 MOUND 4 138 *B340 MOUND10X 1 1	108	101.9	118.1	8.7190	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	57413 CIRCLE 3 115 57429 MOUNDRG3 115 1	91	114.8	136.5	9.8770	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	57429 MOUNDRG3 115 *B340 MOUND10X 1 1	108	101.7	117.8	8.7190	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	61	123.9	151.1	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	104.8	124.3	7.6050	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	316	100.9	120.6	31.2440	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	114.4	135.7	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	92.2	96.8	14.6000	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	92.0	96.5	14.5670	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05SH	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	92.9	94.9	5.8260	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	76.8	97.2	6.3400	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05SH	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	100.7	121.5	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	96.1	122.0	9.0450	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	109.3	138.4	9.0450	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	97.1	116.7	7.7190	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	318	90.0	109.0	30.3240	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 2 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 2

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05SH	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	100.5	121.2	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	95.2	115.6	6.3460	Unit:56751 WCGS U1 25.0 Id:1	47	Solution Undetermined	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	83.3	101.5	6.3460	Unit:56751 WCGS U1 25.0 Id:1	184	Solution Undetermined	TBD
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	77.7	92.6	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05FA	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	78.6	94.3	7.8920	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05FA	MIDW-MIDW	56606 ALXNDR 3 115 56608 NEKOMA 3 115 1	101	77.1	92.8	7.8920	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05FA	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	93.1	95.1	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05FA	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	141	81.6	93.1	8.1260	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	76.7	90.7	5.4840	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58792 SEWARD 3 115 58796 ST-JOHN3 115 1	91	74.1	90.5	7.4360	56871 CIRCLE 6 230 58779 MULGREN6 230 1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	334	78.0	93.0	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	114.1	134.9	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	115.8	141.8	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58775 MILANTP4 138 1	93	73.3	92.7	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	131.7	160.9	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	104.3	124.1	7.7250	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	99.8	119.1	30.3380	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	334	114.5	135.4	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	106.7	108.7	5.8200	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07SP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	334	75.5	90.4	24.9560	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
07SP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	75.2	90.1	24.9560	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
07SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	89.8	92.6	3.1180	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
07SP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	334	105.0	125.9	34.8220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 2 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 2

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
07SP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	86.2	111.8	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	97.5	126.3	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	94.7	114.2	7.7220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	318	91.4	110.5	30.3270	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	104.6	125.4	34.8220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	107.3	109.3	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	99.6	120.1	6.3380	Unit:56751 WCGS U1 25.0 Id:1	4	Solution Undetermined	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	92.2	106.1	5.4790	Unit:56751 WCGS U1 25.0 Id:1	112	Solution Undetermined	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	87.0	105.3	6.3380	Unit:56751 WCGS U1 25.0 Id:1	142	Solution Undetermined	TBD
07WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	706	86.3	90.5	14.5980	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
07WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	706	86.1	90.3	14.5650	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	78.3	92.2	5.4790	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
07WP	SUNC-SUNC	56469 SPERVL7 345 *B436 SPEARVL 1 1	335	101.1	121.9	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	117.2	136.8	7.7200	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	117.1	143.2	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58775 MILANTP4 138 1	94	73.0	92.2	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	133.3	162.6	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	103.4	123.1	7.7200	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	91.1	110.2	30.3250	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	101.3	122.1	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 2 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 2

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
10SP	SPRM-SPRM	59921 MAIN 2 69 59903 PHELPS 1 13.2 1	28	58.8	101.8	6.0000	Unit:59903 PHEL PS 113.2 Id:1	191	Solution Undetermined	TBD
10SP	AEPW-OKGE	53756 CLARKSV7 345 55224 MUSKOGEE7 345 1	894	93.3	94.3	4.7580	53794 R.S.S.-7 345 55224 MUSKOGEE7 345 1	200	Increase CTR at Muskogee to 2000 amps	\$5,000
10SP	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	75.5	91.6	8.1110	58779 MULGREN6 230 58795 SPEARVL6 230 1	200	Solution Undetermined	TBD
10SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	94.7	96.7	5.8790	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	93.7	96.4	3.1110	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
10SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	64	71.5	99.8	9.1130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	90.9	110.6	7.7800	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	98.0	117.5	30.9130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	97.3	118.1	6.3900	Unit:56751 WCGS U1 25.0 Id:1	26	Solution Undetermined	TBD
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	92.4	106.7	5.5300	Unit:56751 WCGS U1 25.0 Id:1	106	Solution Undetermined	TBD
10WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	84.9	103.4	6.3900	Unit:56751 WCGS U1 25.0 Id:1	163	Solution Undetermined	TBD
10WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	706	86.8	90.9	14.4770	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
10WP	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	706	86.6	90.7	14.4450	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
10WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	92.6	94.7	5.8860	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	77.7	91.9	5.5300	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	117.3	137.2	7.7680	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	69	114.0	140.3	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	62	129.8	159.3	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	78	102.3	122.1	7.7680	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	316	92.8	112.3	30.8900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
									This cost may be higher due to additional facilities whose solutions will be determined during the Facility Study process	\$*
									Total Cost with Facilities Monitored @ 90% Loading	\$5,000
									Total Cost with Facilities Monitored @ 100% Loading	\$ -

Table 3 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 3

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05AP	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	81.8	103.0	35.6020	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	77.4	100.9	8.3660	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	64	87.0	113.3	8.3660	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	76.3	95.4	7.6090	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	318	77.2	96.8	31.2530	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05AP	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	81.8	103.1	35.6020	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	88.7	93.3	14.4030	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05G	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	88.5	93.0	14.3700	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05G	AEPW-AEPW	53154 CHAMSPR5 161 53170 TONTITN5 161 1	274	90.4	92.6	3.0500	53154 CHAMSPR5 161 53195 FARMGTN5 161 1	200	AEPW has plans to upgrade NW Arkansas Area by 6/1/2007	
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	75.8	91.1	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05G	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	93.9	95.7	5.1480	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05G	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	142	79.0	90.6	8.2470	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	75.8	91.2	25.6360	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05G	SPRM-SPRM	59921 MAIN 2 69 59922 GRAND 2 69 1	108	37.9	90.8	28.4380	59904 JRPS 26 9 59961 JRPS 5 161 1	200	Solution Undetermined	TBD
05G	SUNC-SUNC	56469 SPERVIL7 345 *B427 SPEARVL 1 1	335	108.6	129.9	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WERE-WERE	57413 CIRCLE 3 115 57429 MOUNDRG3 115 1	92	84.9	106.4	9.8770	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	90.4	114.1	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	102.4	129.0	8.3590	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	95.0	114.3	7.6050	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05G	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	95.9	115.6	31.2440	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 3 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 3

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05G	WEPL-WEPL	58795 SPEARVL6 230 *B427 SPEARVL 1 1	335	108.7	130.0	35.5900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 1	635	90.3	94.9	14.6000	50907 HARRNG6 230 50915 NICHOL6 230 2	200	Solution Undetermined	TBD
05SH	SWPS-SWPS	50907 HARRNG6 230 50915 NICHOL6 230 2	635	90.1	94.7	14.5670	50907 HARRNG6 230 50915 NICHOL6 230 1	200	Solution Undetermined	TBD
05SH	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	96.8	98.9	5.8260	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05SH	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	93.6	114.4	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	75.7	101.1	9.0450	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	64	85.0	113.3	9.0450	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	85.3	104.8	7.7190	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	318	84.1	103.1	30.3240	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05SH	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	335	93.5	114.3	34.8160	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	75.4	90.3	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05FA	MIDW-MIDW	56606 ALXNDR 3 115 56607 NESCTY 3 115 1	101	75.1	90.8	7.8920	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05FA	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	94.2	96.2	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
05FA	WEPL-SUNC	58754 CIM-PLT3 115 56455 NCIMARN3 115 1	141	79.4	90.9	8.1260	56449 HOLCOMB7 345 56469 SPERVIL7 345 1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	73.6	93.6	6.3460	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	334	75.7	90.6	24.9780	Unit:58770 JUD- LRG 113.8 Id:4	200	Solution Undetermined	TBD
05FA	SUNC-SUNC	56469 SPERVIL7 345 *B435 SPEARVL 1 1	335	109.2	130.0	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	95.6	121.1	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	108.0	136.5	9.0550	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	94.6	114.3	7.7250	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 3 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 3

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
05FA	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	315	95.9	115.1	30.3380	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
05FA	WEPL-WEPL	58795 SPEARVL6 230 *B435 SPEARVL 1 1	334	109.6	130.4	34.8340	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	112.1	114.2	5.8200	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07SP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	334	95.7	116.5	34.8220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WERE-WERE	56765 HOYT 7 345 56766 JEC N 7 345 1	1075	91.6	93.6	10.5370	56766 JEC N 7 345 56770 MORRIS 7 345 1	200	Solution Undetermined	TBD
07SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	389	80.0	97.6	34.2140	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
07SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	389	79.8	97.3	34.1040	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD
07SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	94.9	97.7	3.1180	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
07SP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	81.5	107.1	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	92.1	120.8	9.0500	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	80	87.1	106.5	7.7220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	319	82.3	101.3	30.3270	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07SP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	336	95.3	116.1	34.8220	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	105.1	107.2	5.8210	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	88.9	109.0	6.3380	Unit:56751 WCGS U1 25.0 Id:1	110	Solution Undetermined	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	79	86.4	100.4	5.4790	Unit:56751 WCGS U1 25.0 Id:1	195	Solution Undetermined	TBD
07WP	WERE-WERE	56765 HOYT 7 345 56766 JEC N 7 345 1	1076	89.9	91.8	10.5470	56766 JEC N 7 345 56770 MORRIS 7 345 1	200	Solution Undetermined	TBD
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	78.1	96.1	6.3380	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
07WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	392	76.9	93.4	32.3770	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
07WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	392	76.6	93.1	32.2730	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD
07WP	SUNC-SUNC	56469 SPERVIL7 345 *B436 SPEARVL 1 1	335	96.2	117.0	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	79	110.6	130.2	7.7200	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 3 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 3

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
07WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	70	106.4	132.1	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	120.5	149.3	9.0460	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	97.0	116.6	7.7200	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58779 MULGRENE6 230 58795 SPEARVL6 230 1	318	86.6	105.7	30.3250	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
07WP	WEPL-WEPL	58795 SPEARVL6 230 *B436 SPEARVL 1 1	335	96.4	117.2	34.8180	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	564	102.4	104.4	5.8790	56765 HOYT 7 345 56766 JEC N 7 345 1	0	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10SP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	224	99.3	102.0	3.1110	57995 MONTROS5 161 96071 5CLINTN 161 1	43	Non-SPP Third Party Limitation	
10SP	SPRM-SPRM	59921 MAIN 2 69 59903 PHELPS 1 13.2 1	28	58.8	101.8	6.0000	Unit:59903 PHEL PS 113.2 Id:1	191	Solution Undetermined	TBD
10SP	SWPA-SPRM	52692 SPRGFLD5 161 59969 BRKLINE 5 161 1	372	91.0	93.8	5.1360	59955 JUNCTN 5 161 59969 BRKLINE 5 161 1	200	Solution Undetermined	TBD
10SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	388	79.0	97.1	35.0030	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
10SP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	387	78.8	96.8	34.8900	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD
10SP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	72	67.1	92.5	9.1130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	64	75.1	103.4	9.1130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	84.4	104.1	7.7800	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10SP	WEPL-WEPL	58779 MULGRENE6 230 58795 SPEARVL6 230 1	318	86.1	105.5	30.9130	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WERE-WERE	56851 AUBURN 6 230 56852 JEC 6 230 1	565	93.0	95.1	5.8860	56765 HOYT 7 345 56766 JEC N 7 345 1	200	May be relieved due to Westar Operating Procedure 400 - Outage of the Jeffrey Energy Center to Hoyt 345kV Line	TBD
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	83.8	98.0	5.5300	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	76.6	97.0	6.3900	Unit:56751 WCGS U1 25.0 Id:1	200	Solution Undetermined	TBD
10WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	391	77.4	93.3	31.1880	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	200	Solution Undetermined	TBD
10WP	SPRM-SPRM	59969 BRKLINE 5 161 59984 BRKLINE 7 345 2	391	77.1	93.0	31.0880	59969 BRKLINE 5 161 59984 BRKLINE 7 345 1	200	Solution Undetermined	TBD
10WP	AECI-AECI	96071 5CLINTN 161 96124 5HOLDEN 161 1	249	89.5	92.0	3.1360	57995 MONTROS5 161 96071 5CLINTN 161 1	200	Non-SPP Third Party Limitation	
10WP	WEPL-WEPL	58764 GRNBURG3 115 58771 JUD-LRG3 115 1	78	107.8	127.7	7.7680	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD

Table 3 – SPP facility overloads identified for the SECI to SPA transfer using Scenario 3

Study Case	From Area - To Area	Branch Overload	Rating <MW>	BC % Loading	TC % Loading	%TDF	Outaged Branch Causing Overload	ATC <MW>	Solution	Estimated Cost
10WP	WEPL-WEPL	58768 HARPER 4 138 58774 MED-LDG4 138 1	71	95.4	121.2	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58774 MED-LDG4 138 1	63	108.0	136.9	9.0910	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58773 MED-LDG3 115 58797 SUNCITY3 115 1	79	93.3	113.0	7.7680	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
10WP	WEPL-WEPL	58779 MULGREN6 230 58795 SPEARVL6 230 1	317	88.7	108.2	30.8900	50858 FINNEY7 345 50888 POTTRC7 345 1	200	Invalid Contingency, Outage requires curtailment of LAMAR to SPS 210 MW and SECI to SPS 150 MW Transactions	TBD
									This cost may be higher due to additional facilities whose solutions will be determined during the Facility Study process	\$*
									Total Cost with Facilities Monitored @ 90% Loading	\$ -
									Total Cost with Facilities Monitored @ 100% Loading	\$ -

Appendix A

MUST CHOICES IN RUNNING FCITC DC ANALYSIS

CONSTRAINTS/CONTINGENCY INPUT OPTIONS

1. AC Mismatch Tolerance – 2 MW
2. Base Case Rating – Rate A
3. Base Case % of Rating – 90%
4. Contingency Case Rating – Rate B
5. Contingency Case % of Rating – 90%
6. Base Case Load Flow – Do not solve AC
7. Convert branch ratings to estimated MW ratings – Yes
8. Contingency ID Reporting – Labels
9. Maximum number of contingencies to process - 50000

MUST CALCULATION OPTIONS

1. Phase Shifters Model for DC Linear Analysis – Constant flow for Base Case and Contingencies
2. Report Base Case Violations with FCITC – Yes
3. Maximum number of violations to report in FCITC table - 50000
4. Distribution Factor (OTDF and PTDF) Cutoff – 0.03
5. Maximum times to report the same elements - 10
6. Apply Distribution Factor to Contingency Analysis – Yes
7. Apply Distribution Factor to FCITC Reports – Yes
8. Minimum Contingency Case flow change – 1 MW
9. Minimum Contingency Case Distribution Factor change – 0.0
10. Minimum Distribution Factor for Transfer Sensitivity Analysis – 0.0