

***System Impact Study for
Interconnection of 563 MW in
AEP West Control Area***

***Southwest Transmission Planning
(#OAIP 00 005)***

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Executive Summary

Customer has requested a Expedited System Impact Study for the interconnection of a merchant plant in AEP's Control Area. The plant will have a maximum output of 530 MW in the summer and 563 MW in the winter. The projected in service date is 2004.

The principal objective of this study is to identify the costs associated with connecting the plant to AEP's system and what system problems and potential system modifications might be necessary to facilitate the installation of the plant while maintaining system reliability and stability. The study includes a steady state contingency analysis, an analysis of whether the interrupting capabilities of the existing circuit breakers in the area are exceeded with the addition of this new generation, and a transient stability analysis which was performed using two possible scenarios; one with Customer and another previous proposed 1324 MW generation modeled in the same area and one with Customer alone.

For the purposes of this study, three seasons were studied, the 2004 summer & winter peaks and the 2006 summer peak. In all three cases half of the plant's output was sent to PSO and half was sent to Oklahoma Gas & Electric (OG&E).

The cost of interconnecting the new Customer generator to American Electric Power's (AEP's) system if Customer alone is connected without the other generation is \$1.7 million. This cost is for interconnection only as no upgrades are needed for stability or short circuit problems. The interconnection cost for the Customer generation if the previously proposed is connected would increase dramatically. The direct interconnection to the AEP 345kV substation would still be the same (\$1.7 Million), but because the system was found to be unstable at any output above 57 MW there would have to be transmission reinforcements made to the surrounding area to stabilize the system. At the request of Customer, the specific transmission upgrades were not identified, studied, or priced out.

The analysis in this document shows that to accommodate a transfer, several upgrades will be required on the Southwest Power Pool (SPP) 69 kV, 138 kV, and 345 kV transmission systems. These upgrades and their costs, if available, are listed in Tables 1, 2, & 3. The analysis also showed various problems on systems not covered by the SPP Tariff. These overloads are tabulated in Appendix 2.

Introduction

Customer has requested a study for the interconnection of a merchant plant in the AEP Control Area. The total generation capability of the plant will be 530 MW in the summer and 563 MW in the winter. The Customer generation has a projected in-service date of 2004.

The principal objective of this study is to identify the most cost-effective method of connecting the new Customer generation to the AEP transmission system while maintaining system reliability and stability. This study includes steady-state contingency, transient stability, and short circuit analysis.

The steady-state analysis considers the impact of the new generation on transmission line loading and transmission bus voltages for outages of single, double, and triple circuit transmission lines, autotransformers, and generators.

Stability analysis shows the effects of the new generation on the transient stability of the AEP and surrounding utility generators. Transient stability is concerned with recovery from faults on the transmission system that are in close proximity to generating facilities.

This study also includes a short circuit analysis that determines whether the interruption capabilities of existing circuit breakers are exceeded with the addition of the new generation.

Conclusions

The steady state analysis showed that no additional upgrades beyond what is needed for the direct interconnection of the generation to the existing AEP substation are required. Using the scenario requested by Customer of sending half of the plant's output to PSO and half to OG&E numerous problems were discovered. If Customer were to request the aforementioned transaction several transmission upgrades would be needed on AEP's system and other systems in the SPP. These upgrades and their costs if available are shown in tables 1 – 3 in section A. The actual upgrades needed for a transaction would not be determined until Customer made a transmission service request to the SPP and the SPP did a study.

The stability analysis was looked at under two different scenarios. The first scenario was Customer being the only generation connected to the existing substation, while the second scenario was Customer being connected after the 1324 MW of previously proposed generation was connected.

The stability analysis with Customer as a stand-alone generator showed the system to be stable with no addition transmission reinforcements needed on AEP's system. The analysis with the previously proposed generation in service first and Customer's generation being added later showed the system to be unstable and Customer could not be connected to the existing substation without the addition of transmission reinforcements. The specific reinforcements were not identified and studied at Customer's request. Other generation developments in the vicinity in addition to the proposed facilities already mentioned may result in a need to revisit this study.

The short circuit analysis looked at only interrupting devices on the PSO system. None of the devices were found to exceed their interrupting capabilities with the addition of the Customer generation.

Interconnection Costs

Listed below are the costs associated with interconnecting the Customer's generation facility with the AEP transmission system. These cost include additional 345kV breakers and associated equipment at an existing AEP 345 kV substation.

SYSTEM IMPROVEMENT	COST (2001 DOLLARS)
Add two (2) 345 kV breakers to the existing AEP substation	\$1,550,000
Add new RTU, Digital fault recorder and metering equipment	\$150,000
TOTAL	\$1,700,000

A. Steady State Analysis

Customer's
Connection of Proposed Generating Plant
To the AEP Transmission System

Study Methodology

The AEP and Southwest Power Pool (SPP) criteria state that the following conditions be met in order to maintain a reliable and stable system.

- 1) More probably contingency testing must conclude that
 - a) All facility loadings are within their emergency ratings and all voltages are within their emergency limits (0.90- 1.05 per unit) and
 - b) Facility loadings can be returned to their normal limits within four hours
- 2) Less probable contingency testing shall conclude that
 - a) Neither uncontrolled islanding, nor uncontrolled loss of large amounts of load will result.

More probable contingency testing is defined as losing any single piece of equipment or multi-circuit transmission lines. Less probable contingency testing involves the loss of any two critical pieces of equipment such as 345kV autotransformers and generating units or the loss of critical transmission lines in the same right-of-way.

The 00 Series Southwest Power Pool 2004 summer and winter peak base cases along with the 2006 summer peak case were used to model the transmission network and system loads. These cases were modified to reflect known firm point to point transmission requests that have been approved.

Per information received from Customer the point of receipt of the generated capacity of the new plant was 50% of the output sent to PSO and 50% of the output to OG&E.

Using the created models and the ACCC function of PSS\E, single and select double contingency outages on the SPP system were analyzed. Any facility that was found to be overloaded in the transfer case and not in the base case was flagged and a solution for relieving the overload was sought.

The overloads and their solutions are shown in tables 1 through 3.

Table 1 – Overloaded SPP Facilities for 04SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
04SP	AEPW-OG&E	PITTSBURG TO SEMINOLE 345 KV	717	130.9	PITTSBURG TO VALLIANT 345 KV	OG&E: Replace 1200A wavetraps & CT @ Seminole AEP: Modify relay settings	956	OG&E: \$50,000 AEP: \$2,000
04SP	AEPW-ENTR	HOPE TO PATMOS	174	120.5	LONGWOOD TO WILKES 345 KV	AEP: Reconductor 7.1 miles of 666 ACSR with 1590 ACSR	239	AEP: \$1,600,000
04SP	AEPW-AEPW	CHEROKEE REC TO TATUM 138 KV	209	113.3	LONGWOOD TO WILKES 345 KV	Reconductor 6.25 miles of 666 ACSR with 1272 ACSR	287	\$1,300,000
04SP	AEPW-AEPW	CHEROKEE REC TO KNOX LEE 138 KV	209	120.1	LONGWOOD TO WILKES 345 KV	Reconductor 3.25 miles of 666 ACSR with 1272 ACSR	287	\$720,000
04SP	AEPW-AEPW	ROCK HILL TO TATUM 138KV	209	111.6	LONGWOOD TO WILKES 345 KV	Reconductor 0.81 miles of 666 ACSR with 1272 ACSR. Replace 800A trap with new 2000A trap. Reconductor other 5.76 miles of 795 with 1272 ACSR	268	\$1,400,000
04SP	AEPW-AEPW	ELLERBE TO FORBING TAP 69 KV	95	126.1	SOUTH SHREVEPORT TO WALLACE LAKE 138 KV	Replace 500 CU bus & jumpers @ Ellerbe	106	\$30,000
04SP	AEPW-AEPW	BROKEN ARROW 101 ST TO ONETA	210	110.6	TULSA SOUTHEAST TRIPLE CIRCUIT 138 KV	Replace 800A wavetraps @ Oneta	235	\$20,000
04SP	AEPW-AEPW	ONETA 345/138 KV AUTOTRANSFORMER #1	616	100.9	ONETA 345/138 KV AUTOTRANSFORMER #2	Install 3 rd Autotransformer	616	\$4,500,000
04SP	AEPW-SWPA	EUREKA SPRINGS TO BEAVER 161 KV	274	105.7	BULLSHOAL TO FLIPN 161 KV	AEP: Reconductor 1.25 miles of 795 ACSR with 1590 ACSR	312	AEP: \$535,000
04SP	AEPW-AEPW	LIEBERMAN – JEFFERSON IPC 138	115	138.2	LONGWOOD TO WILKES 345 KV	Rebuild 27 miles of 336 ACSR with 795 ACSR. Replace switches at Lieberman	179	\$6,400,000
04SP	AEPW-AEPW	HUGO TO ANTLERS TAP 69	48	100.1	COALGATE TAP – ALLEN TAP 138 KV	Rebuild 15.76 miles of 4/0 ACSR with 795 ACSR.	72	\$4,200,000
						Add 2 nd 345/ 161 kV autotransformer		\$3,500,000

04SP	OG&E-OG&E	PECAN 345/161 KV AUTOTRANSFORMER	369	103.1	CHAMBER SPRINGS 345/161 KV AUTOTRANSFORMER		369	
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Table 1 (Cont.) – Overloaded SPP Facilities for 04SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
04SP	OG&E-OG&E	RUSSETT TO SPRINGDALE TAP 138 KV	96	105.5	FROGVILLE TO HUGO PP 138 KV	Replace 400A wavetrap & relays @ Russett	152	\$50,000
04SP	OG&E-OG&E	SUNNYSIDE 345/138 KV AUTOTRANSFORMER	330	108.8	LAWTON EASTSIDE TO SUNNYSIDE 345 KV	Add 2 nd 330 MVA, 345/138 kV autotransformer	330	\$3,500,000
04SP	OG&E-OG&E	MEMORIAL TO TENNESSEE TAP	287	103.4	HEFNER TO LAKESIDE 138 KV	Replace 1200A switch, wavetrap, & CT @ Memorial	465	\$100,000
04SP	OG&E-OG&E	SOUTHWEST 64 TH TO PENNSYLVANIA 69 KV	72	101.9	MUSTANG TO 138/69 KV AUTOTRANSFORMER	Replace 600A CT @ Pennsylvania	111	\$50,000
04SP	OG&E-OG&E	PAOLI 138/69 KV AUTOTRANSFORMER	50	102.3	WYNNEWOOD TAP TO CHIGLEY 69 KV	Add 2 nd 50 MVA, 138/69 kV autotransformer	50	\$700,000

Table 2 – Overloaded SPP Facilities for 04WP. 563 MW transfer, 282 MW to PSO & 281 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
04WP	AEPW-OG&E	PITTSBURG TO SEMINOLE 345 KV	717	147.8	PITTSBURG TO MUSKOGEE 345 KV	OG&E: Replace 1200A wavetrapped & CT @ Seminole AEP: Modify relay settings, reset CT ratio, & replace wavetrapped	1195	OG&E: \$50,000 AEP: \$25,000
04WP	AEPW-ENTR	HOPE TO PATMOS	197	133.7	ELDORADO 500/345 KV AUTOTRANSFORMER	AEP: Reconductor 7.1 miles of 666 ACSR with 1590 ACSR, replace circuit switcher and reset CTs at Hope	331	AEP: \$1,700,000
04WP	AEPW-AEPW	PITTSBURG TO SUNNYSIDE 345 KV	717	114.7	PITTSBURG TO SEMINOLE 345 KV	OG&E: Replace 1200A CTs & Relays @ Sunnyside AEP: Modify relay settings	956	OG&E: \$50,000 AEP: \$2,000
04WP	AEPW-AEPW	ROCK HILL TO TATUM 138KV	210	101.7	SOUTHWEST SHREVEPORT DOUBLE CIRCUIT 345 KV	Reconductor 0.81 miles of 666 ACSR with 1272 ACSR. Replace 800A trap with new 2000A trap. Reconductor other 5.76 miles of 795 with 1272 ACSR	287	\$1,400,000
04WP	AEPW-AEPW	BROKEN ARROW 101 ST TO ONETA	210	101.6	RIVERSIDE 345/138 KV AUTOTRANSFORMER	Replace 800A wavetrapped @ Oneta	265	\$20,000
04WP	AEPW-SWPA	EUREKA SPRINGS TO BEAVER 161 KV	287	100.2	HUBEN TO MORGAN 345 KV	AEP: Reconductor 1.25 miles of 795 ACSR with 1590 ACSR	335	AEP: \$535,000

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Table 3 – Overloaded SPP Facilities for 06SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused The Worst Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
06SP	AEPW-OG&E	PITTSBURG TO SEMINOLE 345 KV	717	118.0	LAWTON EASTSIDE TO SUNNYSIDE 345 KV	OG&E: Replace 1200A wavetraps & CT @ Seminole AEP: Modify relay settings, reset CT ratio, & replace wavetraps	1176	OG&E: \$50,000 AEP: \$25,000
06SP	AEPW-ENTR	HOPE TO PATMOS 115 KV	174	161.2	CROCKETT TO TENASKA 345 KV	AEP: Reconductor 7.1 miles of 666 ACSR with 1590 ACSR, replace circuit switcher and reset CTs at Hope	295	AEP: \$1,700,000
06SP	AEPW-AEPW	CHEROKEE REC TO TATUM 138 KV	209	105.3	MARSHALL 138/69 KV AUTOTRANSFORMER	Reconductor 6.25 miles of 666 ACSR with 1272 ACSR	287	\$1,300,000
06SP	AEPW-AEPW	CHEROKEE REC TO KNOX LEE 138 KV	209	105.0	CROCKETT TO TENASKA 345 KV	Reconductor 3.25 miles of 666 ACSR with 1272 ACSR	287	\$720,000
06SP	AEPW-AEPW	ROCK HILL TO TATUM 138KV	209	103.7	MARSHALL 138/69 KV AUTOTRANSFORMER	Reconductor 0.81 miles of 666 ACSR with 1272 ACSR. Replace 800A trap with new 2000A trap. Reconductor other 5.76 miles of 795 with 1272 ACSR	268	\$1,400,000
06SP	AEPW-OG&E	PITTSBURG TO SUNNYSIDE 345 KV	717	115.9	PITTSBURG TO SEMINOLE 345 KV	OG&E: Replace 1200A CTs & Relays @ Sunnyside AEP: Modify relay settings	956	OG&E: \$50,000 AEP: \$2,000
06SP	AEPW-AEPW	BROKEN ARROW 101 ST TO ONETA	210	107.1	CATOOSA DOUBLE CIRCUIT 138 KV	Replace 800A wavetraps @ Oneta	235	\$20,000
04SP	AEPW-AEPW	ONETA 345/138 KV AUTOTRANSFORMER #1	616	100.9	ONETA 345/138 KV AUTOTRANSFORMER #2	Install 3 rd Autotransformer	616	\$4,500,000
06SP	AEPW-SWPA	EUREKA SPRINGS TO BEAVER 161 KV	274	117.9	MUSKOGEE TO FORT SMITH 345 KV	AEP: Reconductor 1.25 miles of 795 ACSR with 1590 ACSR & replace 1033 AAC jumpers SWPA: Reconductor 5.98 miles of 795 ACSR with 1590 ACSR	335	AEP: \$535,000 SWPA: \$2,900,000
						Rebuild 27 miles of 336 ACSR with 795		\$6,400,000

06SP	AEPW-AEPW	LIEBERMAN – JEFFERSON IPC 138	115	168.3	LONGWOOD TO WILKES 345 KV	ACSR. Replace switches & 500 CU jumpers at Lieberman	210	
06SP	AEPW-WERE	SOUTH COFFEYVILLE TAP TO DEARING 138 KV	210	111.8	DELAWARE TO NEOSHO 345 KV	WERE: Replace 800A wavetrap @ Dearing	235	WERE: \$25,000

Table 3 (Cont.) – Overloaded SPP Facilities for 06SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused The Worst Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
06SP	AEPW-AEPW	FULTON TO HOPE 115 KV	239	126.1	CROCKETT TO TENASKA 345 KV	Replace circuit switcher & CTs at Hope	309	\$80,000
06SP	AEPW-ENTR	EUREKA SPRINGS TO OSAGE 161 KV	244	102.5	MUSKOGEE TO FORT SMITH 345 KV	AEP: Rebuild 5.56 miles of 666 ACSR with 1590 ACSR	263	AEP: \$2,213,000
06SP	AEPW-ENTR	SOUTH NASHVILLE TO MURFREESBORO 138 KV	105	103.2	COUCH TO LEWIS 115 KV	Replace South Nashville wavetrap	158	\$20,000
06SP	AEPW-AEPW	BROKEN ARROW 101 ST TO BROKEN ARROW 81 ST 138 KV	235	104.9	ONETA DOUBLE CIRCUIT 138 KV	Rebuild 2.05 miles of 795 ACSR with 1590 ACSR	287	\$1,431,000
06SP	AEPW-AEPW	53 RD & GARNETT TO TULSA SOUTHEAST 138 KV	143	103.1	TULSA SOUTHEAST TRIPLE CIRCUIT 138 KV	Replace Tulsa Southeast switches	179	\$60,000
06SP	AEPW-AEPW	RICE CREEK TO BARTLESVILLE SOUTHEAST 138 KV	210	100.6	NORTHEASTERN STATION TRIPLE CIRCUIT 138 KV	Replace wavetrap & jumpers @ NES	287	\$20,000
06SP	AEPW-AEPW	HALLSVILLE TO LONGVIEW HEIGHTS 69 KV	48	100.8	MARSHALL 138/69 KV AUTOTRANSFORMER	Rebuild 7.07 miles of 4/0 ACSR with 795 ACSR	59	\$1,630,000
06SP	AEPW-AEPW	ROOSEVELT AMOCO TO SNYDER 69 KV	42	130.7	HOBART JCT TO HOBART CITY 69 KV	Rebuild 13.99 miles of 3/0 ACSR with 795 ACSR	72	\$2,264,000
06SP	AEPW-AEPW	DYESS TO CHAMBER SPRINGS 161 KV	244	109.5	MUSKOGEE TO FORT SMITH 345 KV	Rebuild 18.73 miles of 666 ACSR with 1590 ACSR	295	\$3,450,000
						Replace 1200A line switch @ Farmington		\$35,000

06SP	AEPW-AEPW	CHAMBER SPRINGS TO FARMINGTON 161 KV	335	100.7	MUSKOGEE TO FORT SMITH 345 KV		361	
06SP	AEPW-AEPW	EAST CENTERTON – GENTRY 161 KV	335	100.7	MUSKOGEE TO FORT SMITH 345 KV	Replace 1200A switches @ Gentry & East Centerton	353	\$70,000

Table 3 (Cont.) – Overloaded SPP Facilities for 06SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused The Worst Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
06SP	AEPW-AEPW	FLINT CREEK – GENTRY 161 KV	335	102.0	MUSKOGEE TO FORT SMITH 345 KV	Replace 1200A switches @ Gentry & Flint Creek	353	\$70,000
06SP	OG&E-OG&E	SOUTHWEST 64 TH TO PENNSYLVANIA 69 KV	72	105.9	MUSTANG 138/69 KV AUTOTRANSFORMER	Replace 600A CT @ Pennsylvania	111	\$50,000
06SP	OG&E-OG&E	PAOLI 138/69 KV AUTOTRANSFORMER	50	105.5	WYNNEWOOD TAP TO CHIGLEY 69 KV	Add 2 nd 50 MVA, 138/69 kV autotransformer	50	\$700,000
06SP	OG&E-OG&E	PECAN 345/161 KV AUTOTRANSFORMER	369	138.0	MUSKOGEE TO FORT SMITH 345 KV	Add 2 nd 345/ 161 kV autotransformer	369	\$3,500,000
06SP	OG&E-OG&E	SUNNYSIDE 345/138 KV AUTOTRANSFORMER	330	108.8	PITTSBURG TO SEMINOLE 345 KV	Add 2 nd 330 MVA, 345/138 kV autotransformer	330	\$3,500,000
06SP	OG&E-SWPA	VBI TO VAN BUREN 161 KV	335	110.4	MUSKOGEE TO FORT SMITH 345 KV	OG&E: Replace 1200A switch & CTs @ VBI SWPA: Reconductor .22 miles of line w/2-795 ACSR. Replace terminals at both ends	558	SWPA: \$500,000
06SP	OG&E-OG&E	MUSKOGEE TO PECAN 345 KV	478	107.6	MUSKOGEE TO FORT SMITH 345 KV	Replace 800A CT & relays @ Muskogee & Pecan Creek	1195	\$100,000
06SP	OG&E-OG&E	VBI TO HIGHWAY 59 161 KV	167	115.8	MUSKOGEE TO FORT SMITH 345 KV	Rebuild & reconductor 1 mile H-frame line to 477 ACSR	259	\$350,000
06SP	OG&E-OG&E	FORT SMITH 345/161 KV AUTOTRANSFORMER	493	116.9	FORT SMITH 500/345 KV AUTOTRANSFORMER	Convert substation to breaker & one-half arrangement and add 3 rd 493 MVA 345/161 KV autotransformer and breakers	493	\$6,000,000
06SP	OG&E-OG&E	RUSSETT TO SPRINGDALE TAP 138 KV	96	105.9	UNGER TO WESTBANK 138 KV	Replace 400A wavetrap & relays @ Russett	152	\$50,000

06SP	OG&E-OG&E	MEMORIAL TO TENNESSEE TAP 138 KV	287	100.1	MEMORIAL TO REMINGTON PARK 138 KV	Replace 1200A switch, wavetrap & CT @ Memorial	465	\$100,000
06SP	OG&E-OG&E	MEMORIAL TO REMINGTON PARK 138 KV	191	104.8	MEMORIAL TO TENNESSEE TAP 138 KV	Replace 800A wavetrap & relays @ Memorial	287	\$75,000

Table 3 (Cont.) – Overloaded SPP Facilities for 06SP. 530 MW transfer, 265 MW to PSO & 265 MW to OG&E. The upgrades and costs (if available) are included.

Study Year	From -To Area(s)	Branch Over 100% Rate B	Rate B <MVA>	530MW Transfer Case %Loading	Outaged Branch That Caused The Worst Overload	Upgrades Required to Relieve Overload	New Rate B <MVA>	Costs for Required Upgrades
06SP	SWPA-SWPA	VAN BUREN TO SALLISAW 161 KV	167	110.3	MUSKOGEE TO FORT SMITH 345 KV	Increase clearances of 20 spans to allow operation of line at 100 DEG C	223	\$1,000,000
06SP	SWPA-SWPA	SALLISAW TO GORE 161 KV	167	127.9	MUSKOGEE TO FORT SMITH 345 KV	Increase clearances of 10 spans to allow operation of line at 100 DEG C	223	\$500,000
06SP	SWPA-SWPA	GORE TO MUSKOGEE TAP 161 KV	206	114.0	MUSKOGEE TO FORT SMITH 345 KV	Reconductor 16 miles of and replace wavetrap @ Gore	235	\$5,600,000
06SP	RAYBURN	JACKSONVILLE TO OVERTON	235	111.8	CROCKETT TO TENASKA 345 KV	Rebuild transmission line		\$2,220,000
06SP	WFEC-WFEC	COMANCHE TO WALTERS 69 KV	38	100.8	WALTERS TO LAWTON RELIFT TAP 69 KV	Rebuild 16.1 miles of 69 kV line with 477 ACSR	77	\$2656,500

