

SOLUTION		GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TC%LOADING (% MVA)	TDF	CONTINGENCY
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05794	101.3697	MULLERGEREN (MULGEREN) 230/115/73 8KV TRANSFORMER CKT 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.3509	GEN542902 1-GPW_G1 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.3163	GEN640011 2-GERALD GENTLEMAN STATION UNIT 2		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05905	101.3154	POSTROCK6 230.00 - SOUTH HAYS 230KV CKT 1		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05737	101.3088	GEN541151 3-SIBLEY GENERATING UNIT #3		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.2991	GEN562298 1-G12-024 0.6500		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05755	101.2804	G10-056T 345.00 - ST JOE 345KV CKT 1		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05792	101.2794	MCCOOL - MOORE 345KV CKT 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.2794	GEN640010 1-GERALD GENTLEMAN STATION UNIT 1		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05814	101.2734	SPP-MKEC-098		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05814	101.2681	CLEARWATER - MILAN TAP 138KV CKT 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.2345	GEN560514 1-G04_014 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	101.1976	GEN523117 1-BUFF_DUNES210 6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.8762	GEN560693 1-G11-008-1 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.8365	GEN560659 1-G07-38 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.8115	GEN560432 1-G08-124 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.782	GEN562035 1-G11_016_3 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.6778	GEN560549 1-G06-06 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.4107	GEN562123 1-G12_011_3 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.3994	GEN560714 1-G10_061_3 0.6900		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.0573	100.2617	GEN539677 3-A M MULLERGEREN GENERATOR		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05737	100.2064	BASE CASE		
FDNS	3	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05737	100.2064	NC1_GEN-NEBRASKA CITY 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	CIRCLE - MULLERGEREN 230KV CKT 1	318.7	0.05648	100.1864	HOYT - STRANGER CREEK 345KV CKT 1		
FDNS	03G12_024	014G	G12_024	FROM->TO	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	191	0.03742	102.2053	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	FROM->TO	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	191	0.05541	100.9746	DBL-WICH-THI		
FDNS	03G12_024	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.03742	189.6935	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05541	187.4658	DBL-WICH-THI		
FDNS	3	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.03748	182.9825	DBL-WICH-THI		
FDNS	06A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.0555	165.8076	DBL-THIS-CLR		
FDNS	6	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05526	135.8832	DBL-WICH-THI		
FDNS	07A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05539	127.0937	DBL-WICH-THI		
FDNS	7	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05566	122.8194	DBL-WICH-THI		
FDNS	00G12_024	014WP	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05562	119.054	DBL-WICH-THI		
FDNS	00G12_024	014WP	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05501	118.7075	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05712	111.815	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.03064	110.5703	THISTLE7 345.00 - WICHITA 345KV CKT 1		
FDNS	01A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.03064	110.5703	THISTLE7 345.00 - WICHITA 345KV CKT 2		
FDNS	09A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.05556	106.2012	DBL-WICH-THI		
FDNS	9	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0.0556	105.1073	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	286	0.06161	102.0663	DBL-WICH-THI		
FDNS	03A11	014G	G12_024	TO->FROM	FPL SWITCH - THISTLE4 138.00 138KV CKT 1	153	0.04269	124.0058	G12-016 TAP 345.00 - MORELAND 345.00 345KV CKT 1		
FDNS	03A11	014G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0.04269	128.881	MORELAND 345.00 (MRINDAUTO) 345/138/73 8KV TRANSFORMER CKT 1		
FDNS	01A11	014G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0.03276	103.3278	G12-016 TAP 345.00 - MORELAND 345.00 345KV CKT 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0.03276	103.2084	MORELAND 345.00 (MRINDAUTO) 345/138/73 8KV TRANSFORMER CKT 1		
FDNS	03G12_024	014G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0.04278	100.9448	G12-016 TAP 345.00 - MORELAND 345.00 345KV CKT 1		
FDNS	03G12_024	014G	G12_024	FROM->TO	FPL SWITCH - WOODWARD 138KV CKT 1	153	0.04278	100.8821	MORELAND 345.00 (MRINDAUTO) 345/138/73 8KV TRANSFORMER CKT 1		
FDNS	01A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03742	200.0988	DBL-WICH-THI		
FDNS	3	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05541	197.8542	DBL-WICH-THI		
FDNS	1	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03748	198.2999	DBL-WICH-THI		
FDNS	06A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.0555	176.3096	DBL-WICH-THI		
FDNS	6	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05526	146.4333	DBL-THIS-CLR		
FDNS	07A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05539	137.6343	DBL-WICH-THI		
FDNS	7	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05566	133.3765	DBL-WICH-THI		
FDNS	00G12_024	014WP	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05562	129.6126	DBL-WICH-THI		
FDNS	00G12_024	014WP	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05501	128.9259	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03712	123.2185	DBL-WICH-THI		
FDNS	01A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03064	120.7982	THISTLE7 345.00 - WICHITA 345KV CKT 1		
FDNS	09A11	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.05556	116.7307	DBL-WICH-THI		
FDNS	9	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.0556	115.6417	DBL-WICH-THI		
FDNS	1	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03067	109.5785	THISTLE7 345.00 - WICHITA 345KV CKT 1		
FDNS	00G12_024	014G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0.03067	109.5785	THISTLE7 345.00 - WICHITA 345KV CKT 2		
FDNS	03A11	014G	G12_024	TO->FROM	KNOLL 230 - POSTROCK6 230.00 230KV CKT 1	398	0.05565	105.8396	AXTELL - POST ROCK 345KV CKT 1		

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FDNS	03ALL	0	14G	G12_024	FROM->TO	MULGREN7 345 00 (MULLERGREN1) 345/230/13 8KV TRANSFORMER CKT 1	600	0 10849	104 8345	G12-011T 345 00 - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	MULGREN7 345 00 (MULLERGREN1) 345/230/13 8KV TRANSFORMER CKT 1	600	0 10849	104 389	G12-011T 345 00 - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	MULLERGREN - SOUTH HAYS 230KV CKT 1	297	0 07011	125 6811	G12-011T 345 00 - POST ROCK 345KV CKT 1
FDNS	03G12_024	0	14G	G12_024	FROM->TO	MULLERGREN - SOUTH HAYS 230KV CKT 1	297	0 07064	99 5	G12-011T 345 00 - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 10198	119 8748	G11-17T 345 00 - SPEARVILLE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 05991	114 3877	G11-17T 345 00 - MULGREN7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 05991	114 1152	MULGREN7 345 00 (MULLERGREN1) 345/230/13 8KV TRANSFORMER CKT 1
FDNS	03G12_024	0	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 10262	102 6074	G11-17T 345 00 - SPEARVILLE 345KV CKT 1
FNSL-Blown up	3	0	14G	G12_024	-	Non-converged Contingency	0	0 55547	-	DBL-THIS-CLR
FNSL-Blown up	01ALL	0	14G	G12_024	-	Non-converged Contingency	0	0 1431	-	DBL-TGA-MATT
FNSL-Blown up	03ALL	0	14G	G12_024	-	Non-converged Contingency	0	0 5542	-	DBL-THIS-CLR
FNSL-Blown up	03ALL	0	14G	G12_024	-	Non-converged Contingency	0	0 23148	-	DBL-WICH-THI
FNSL-Blown up	03G12_024	0	14G	G12_024	-	Non-converged Contingency	0	0 55533	-	DBL-THIS-CLR
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05444	131 1278	AXTELL - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04968	125 2673	CIRCLE - MULLERGREN 230KV CKT 1
FDNS	03G12_024	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05503	113 9393	DBL-WICH-THI
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03962	112 9412	DBL-BVR-WWRD
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04353	111 3263	THISTLE7 345 00 - WICHITA 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04353	111 3263	THISTLE7 345 00 - WICHITA 345KV CKT 2
FDNS	03G12_024	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05487	110 3867	AXTELL - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04285	110 3789	DBL-TGA-MATT
FDNS	3	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05511	109 985	DBL-WICH-THI
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04211	109.6249	BEAVER CO 345 00 - BUCKNER7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04285	109 2719	G11_051T 345 00 - WOODWARD DISTRICT EHV 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04285	109 228	G11_051T 345 00 - TATONGA7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04181	109 1523	AXTELL - PAULINE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	108 2573	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	108 2567	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0407	108 2522	GRAND ISLAND - SWEETWATER 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	108 0173	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0414	107 8072	MOORE - PAULINE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	107 2937	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04198	107 1219	CIRCLE - EAST MCPHERSON 230KV CKT 1
FDNS	3	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0.05495	107 0178	AXTELL - POST ROCK 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04043	106 6881	FINNEY SWITCHING STATION - Hitchland Interchange 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04043	106 6855	SPP-SWPS-05
FDNS	03G12_024	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05007	106 2032	CIRCLE - MULLERGREN 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03986	105 6691	MINGO - RED WILLOW 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03472	105 6514	CLARKCOUNTY7345 00 - IRONWOOD7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03472	105 522	CLARKCOUNTY7345 00 - SPEARVILLE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03949	105 3903	LAWTON EASTSIDE - OKLAUNION 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04031	105 1653	ST JOHN - ST JOHN 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04029	105 0404	ELM CREEK - NORTHWEST MANHATTAN 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03938	105 0147	BEAVER CO 345 00 - WOODWARD DISTRICT EHV 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03938	105 0147	BEAVER CO 345 00 - WOODWARD DISTRICT EHV 345KV CKT 2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04016	104 983	SPP-MKEC-06
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0.04658	104 9706	BUCKNER7 345 00 - SPEARVILLE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04016	104 9706	SEWARD - ST JOHN 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 8484	GEN542962 2-IATAN UNIT #2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03996	104.8117	GRAND ISLAND - MCCOOL 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04039	104 6799	PHILLIPSBURG - SMITH CENTER 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03988	104 6545	KNOLL - SALINE RIVER 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03946	104 6438	STEGALL - STEGALL TY 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03946	104 6298	STEGALL - STEGALL TRANSFORMER 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03946	104 6263	STEGALL TY 345/230KV TRANSFORMER CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03946	104 6208	NEB01WAPAB3
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03946	104 6122	TRF-STEGALL
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 5225	GEN542955 1-LACYGNE UNIT #1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 5182	GEN542956 2-LACYGNE UNIT #2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 4329	GEN542957 1-IATAN UNIT #1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03988	104 4216	PLAINVILLE - SALINE RIVER 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 3563	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03999	104 3012	POTTER COUNTY INTERCHANGE (WAUK 90343-A) 345/230/13 2KV TRANSFORMER CKT 1

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03996	104 2961	MCCOOL - MOORE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03968	104 2811	GREENSBURG - SSTARTP3 115 00 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04031	104 219	HUNTSVILLE - ST JOHN 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04031	104 1857	MIDW-CATB05
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03999	104 1102	SPP-MKEC-08
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03968	104 0934	SPP-MKEC-09B
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03968	104 0743	GREENSBURG - SUN CITY 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03951	104 0627	G10-056T 345 00 - ST JOE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04062	104 0612	EMPORIA ENERGY CENTER - WICHITA 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04031	104 042	HUNTSVILLE - HUTCHINSON ENERGY CENTER 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03999	104 0376	Hitchland Interchange - POTTER COUNTY INTERCHANGE 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03995	104 0181	MATHWSN7 345 00 - TATONGA7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03995	104 0181	MATHWSN7 345 00 - TATONGA7 345 00 345KV CKT 2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	104 0101	GEN542951 5-HAWTHORN UNIT #5
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03988	103 977	PHILLIPSBURG - PLAINVILLE 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0397	103 9688	GREAT BEND TAP - SEWARD 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0397	103 9637	GREAT BEND TAP - MULLERGREEN 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03968	103 9563	MEDICINE LODGE - SUN CITY 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03999	103 9545	SPP-SWPS-04
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03951	103 8485	COOPER - G10-056T 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03947	103 826	MUNDURD - WAYSIDE 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 04043	103 7517	FINNEY SWITCHING STATION - HOLCOMB 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	103 6996	GEN541151 3-SIBLEY GENERATING UNIT #3
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03965	103 6631	BEACH STATION - G10-48T 115 00 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03957	103 4479	KNOLL 230 (KNOLL T1) 230/115/11 49KV TRANSFORMER CKT 1
FDNS	3	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 05014	103 0078	CIRCLE - MULLERGREEN 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03872	102 5526	MINGO - SETAB 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	102 5293	BASE CASE
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	102 5293	NC1_GEN-NEBRASKA CITY 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03431	102 1273	SUMMIT (SUMMIT1X) 345/230/14 4KV TRANSFORMER CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0391	101 7172	NORTHVIEW - SUMMIT 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 5325	GEN640009 1-COOPER NUCLEAR STATION
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03833	101 478	WR-DOUBLE18
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03935	101 4438	COLBY - MINGO 115KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03862	101 3635	MULLERGREEN - SPEARVILLE 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 3548	EASTOWN7 345 00 - IATAN 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 3236	GEN645011 1-NEBRASKA CITY 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03854	101 319	RENFLOW7 345 00 - VIOLA 7 345 00 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03833	101 3069	WR-DOUBLE16
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03833	101 2904	SPP-WR-305B
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 2692	GEN645001 1-FORT CALHOUN 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 2522	GEN527903 1-HOBBS PLANT #3 (ST)
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 2035	GEN641089 2-ENERGY CENTER 2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 1489	GEN531459 2-52 GENERATOR
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 1182	GEN539762 1-SSWIND 1 34 500
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 1083	GEN539670 4-JUDSON LARGE GENERATOR
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 0257	GEN560522 1-G05-12-2 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	101 0247	GEN645012 2-NEBRASKA CITY 2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 97	GEN539785 1-ENSGW 1 0 5750
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03756	100 9682	POSTROCK6 230 00 - SOUTH HAYS 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 9123	GEN560696 1-G11-008-4 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03944	100 8967	EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03833	100 8146	WR-DOUBLE17
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 8079	GEN539677 3-A M MULLERGREEN GENERATOR
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 8025	GEN523971 1-HARRINGTON GEN #1 24 KV
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 8024	GEN523972 1-HARRINGTON GEN #2 24 KV
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 7975	GEN523973 1-HARRINGTON GEN #3 24 KV
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 7001	GEN560267 1-G10-15-1 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 664	GEN539767 1-GRAY COUNTY WIND FARM
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 6579	GEN560268 1-G10-15-2 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 5901	GEN560140 1-G09-08 0 7000
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 5417	GEN659111 2-LELAND OLDS UNIT2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 4695	GEN560695 1-G11-008-3 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 417	GEN659103 1-ANTELOPE VALLEY UNIT1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 417	GEN659107 2-ANTELOPE VALLEY UNIT2
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 3532	GEN560694 1-G11-008-2 0 6900

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 2534	GEN560235 1-G08-92 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 2443	GEN525561 1-TOLK GEN #1 24 KV
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03595	100 2093	MULLERGREN - SOUTH HAYS 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100 192	GEN525562 1-TOLK GEN #2 24 KV
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	100	GEN560238 1-G10-09 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 9	GEN562298 1-G12-024 0 6500
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03634	99 9	MORRIS COUNTY - UNIONRG6 230 00 230KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 7	GEN542902 1-GPW_G1 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 6	GEN560514 1-G04_014 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 6	GEN560693 1-G11-008-1 0 6900
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03819	99 6	SWISSVALE - WEST GARDNER 345KV CKT 1
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 5	GEN531503 1-CIMRRN 1 34 500
FDNS	03ALL	0	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03929	99 5	GEN560329 1-G10-45 0 6900
FDNS	03ALL	2	14G	G12_024	TO->FROM	CHISHOLM - MAIZEE 4 138 00 138KV CKT 1	287	0 04307	112 2713	BENTON - WICHITA 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	CHISHOLM - MAIZEE 4 138 00 138KV CKT 1	287	0 04328	100 6462	BENTON - WICHITA 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	CIRCLE - MULLERGREN 230KV CKT 1	318 7	0 05696	126 8803	MULGREN7 345 00 - RENO COUNTY 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	CIRCLE - MULLERGREN 230KV CKT 1	318 7	0 05735	106 4386	MULGREN7 345 00 - RENO COUNTY 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	CIRCLE - MULLERGREN 230KV CKT 1	318 7	0 04518	104 5569	DBL-WICH-THI
FDNS	3	2	14G	G12_024	TO->FROM	CIRCLE - MULLERGREN 230KV CKT 1	318 7	0 05741	102 2366	MULGREN7 345 00 - RENO COUNTY 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	FROM->TO	CLEARWATER - GILL ENERGY CENTER WEST 138KV CKT 1	191	0 0308	106 4829	DBL-WICH-THI
FDNS	03ALL	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 0308	197 074	DBL-WICH-THI
FDNS	03G12_024	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 03105	169 8723	DBL-WICH-THI
FDNS	3	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 03109	164 6246	DBL-WICH-THI
FDNS	07ALL	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 05566	122 8194	DBL-WICH-THI
FDNS	7	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 05562	119 054	DBL-WICH-THI
FDNS	09ALL	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 05556	106 1167	DBL-WICH-THI
FDNS	9	2	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 0556	105 0304	DBL-WICH-THI
FDNS	03ALL	2	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 04136	123 6157	G12-016 TAP 345 00 - MORELND 345 00 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 04136	123 5287	MORELND 345 00 (MRLNDAUTO) 345/138/13 8KV TRANSFORMER CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 04143	102 1988	G12-016 TAP 345 00 - MORELND 345 00 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 04143	102 1454	MORELND 345 00 (MRLNDAUTO) 345/138/13 8KV TRANSFORMER CKT 1
FDNS	03ALL	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 0308	207 4792	DBL-WICH-THI
FDNS	03G12_024	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 03105	180 2715	DBL-WICH-THI
FDNS	3	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 03109	175 0538	DBL-WICH-THI
FDNS	07ALL	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 05566	133 3765	DBL-WICH-THI
FDNS	7	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 05562	129 6125	DBL-WICH-THI
FDNS	09ALL	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 05556	116 6464	DBL-WICH-THI
FDNS	9	2	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 0556	115 565	DBL-WICH-THI
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 11082	153 7816	G11-17T 345 00 - SPEARVILLE 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 07417	143 8918	G11-17T 345 00 - MULGREN7 345 00 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 11143	130 0266	G11-17T 345 00 - SPEARVILLE 345KV CKT 1
FDNS	3	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 11151	123 4433	G11-17T 345 00 - SPEARVILLE 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 07456	120 438	G11-17T 345 00 - MULGREN7 345 00 345KV CKT 1
FDNS	3	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 07461	116 0441	G11-17T 345 00 - MULGREN7 345 00 345KV CKT 1
FDNS	03G12_024	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 09635	115 7388	DBL-THIS-CLR
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 0594	115 0741	DBL-WICH-THI
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 05893	113 0617	G12-011T 345 00 - POST ROCK 345KV CKT 1
FDNS	3	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 09639	108 9542	DBL-THIS-CLR
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 05893	105 7165	G11-17T 345 00 - G12-011T 345 00 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 06029	102 002	CLARKCOUNTY7345 00 - THISTLE7 345 00 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	TO->FROM	MULLERGREN - SPEARVILLE 230KV CKT 1	318 7	0 06029	102 002	CLARKCOUNTY7345 00 - THISTLE7 345 00 345KV CKT 2
FDNS	03ALL	2	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 0406	104 0811	AXTELL - POST ROCK 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03936	104 0697	MULGREN7 345 00 - RENO COUNTY 345KV CKT 1
FDNS	03ALL	2	14G	G12_024	FROM->TO	SMOKYHL6 230 00 - SUMMIT 230KV CKT 1	330	0 03736	101 419	DBL-WICH-THI
FDNS	01ALL	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04697	165 4474	DBL-WICH-THI
FDNS	1	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04704	146 3378	DBL-WICH-THI
FDNS	06ALL	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04684	118 7157	DBL-WICH-THI
FDNS	6	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04696	110 9653	DBL-WICH-THI
FDNS	07ALL	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04719	107 6462	DBL-WICH-THI
FDNS	7	3	14G	G12_024	TO->FROM	CLEARWATER - MILAN TAP 138KV CKT 1	110	0 04716	104 296	DBL-WICH-THI
FDNS	01ALL	3	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 03126	101 0412	G12-016 TAP 345 00 - MORELND 345 00 345KV CKT 1
FDNS	01ALL	3	14G	G12_024	TO->FROM	FPL SWITCH - WOODWARD 138KV CKT 1	153	0 03126	100 9329	MORELND 345 00 (MRLNDAUTO) 345/138/13 8KV TRANSFORMER CKT 1
FDNS	01ALL	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04697	175 8461	DBL-WICH-THI
FDNS	1	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04704	156 8076	DBL-WICH-THI
FDNS	06ALL	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04684	129 2497	DBL-WICH-THI
FDNS	6	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04696	121 5091	DBL-WICH-THI

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	07ALL	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04719	118 2008	DBL-WICH-THI
FDNS	7	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04716	114 8529	DBL-WICH-THI
FDNS	09ALL	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04711	102 2073	DBL-WICH-THI
FDNS	9	3	14G	G12_024	FROM->TO	HARPER - MILAN TAP 138KV CKT 1	110	0 04714	101 5606	DBL-WICH-THI
FNSL-Blown up	01ALL	3	14G	G12_024	-	Non-converged Contingency	0	0 13676	-	DBL-TGA-MATT
FDNS	08ALL	0	14G	G12_027	FROM->TO	4REMNGTON 138 00 - FAIRFAX 138KV CKT 1	174	0 48184	101 36	SHIDLER - WEST PAWHUSKA 138KV CKT 1
FDNS	08ALL	0	14G	G12_027	FROM->TO	4REMNGTON 138 00 - FAIRFAX 138KV CKT 1	174	0 48184	100 9752	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 11313	113 6683	FAIRFAX - FAXTAP4 138 00 138KV CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 11314	110 553	FAIRFAX - FAXTAP4 138 00 138KV CKT 1
FDNS	00G12_027	0	14SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 1131	109 3424	FAIRFAX - FAXTAP4 138 00 138KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 05138	107 6441	CLEAVELAND - OSAGE 69KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 04909	103 7752	4SFORKK 138 00 - 4SFORKKTP 138 00 138KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 04909	103 7598	4SFORKK 138 00 138/69KV TRANSFORMER CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 05138	103 0837	CLEAVELAND - OSAGE 69KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 08433	102 9439	FAIRFAX TAP - WEBB CITY TAP 138KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 08433	102 9355	FAIRFAX TAP - SHIDLER 138KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 04907	102 538	CLEAVELAND DIST - OSAGE 69KV CKT 1
FDNS	00G12_027	0	24SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 03491	101 5762	SOUTH FORK - TALLANT 69KV CKT 1
FDNS	08ALL	0	14G	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 10808	100 671	FAIRFAX - FAXTAP4 138 00 138KV CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 04909	100 5339	4SFORKK 138 00 - 4SFORKKTP 138 00 138KV CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 04909	100 5214	4SFORKK 138 00 138/69KV TRANSFORMER CKT 1
FDNS	00G12_027	0	14SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 0515	100.4701	CLEAVELAND - OSAGE 69KV CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 08434	99 7	FAIRFAX TAP - SHIDLER 138KV CKT 1
FDNS	00G12_027	0	19SP	G12_027	FROM->TO	FAIRFAX 138/69KV TRANSFORMER CKT 1	56	0 08434	99 7	FAIRFAX TAP - WEBB CITY TAP 138KV CKT 1
FDNS	06ALL	0	14G	G12_027	FROM->TO	LAWEASOKLUNI	425	0 0414	140 1	DBL-THIS-CLR
FDNS	6	0	14G	G12_027	FROM->TO	LAWEASOKLUNI	425	0 04053	121 2	BASE CASE
FDNS	00G12_027	0	19WP	G12_027	FROM->TO	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	375	0 03178	102 642	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
FDNS	0	0	19WP	G12_027	FROM->TO	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	375	0 03173	101 7182	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
FDNS	06ALL	0	14G	G12_027	FROM->TO	TUCXFR345230	300	0 0398	102 6	BASE CASE
FDNS	06ALL	3	14G	G12_027	FROM->TO	LAWEASOKLUNI	425	0 04113	139 2	BASE CASE
FDNS	6	3	14G	G12_027	FROM->TO	LAWEASOKLUNI	425	0 04027	120 3	BASE CASE
FDNS	00G12_027	3	19WP	G12_027	FROM->TO	SILOAM CITY - SILOAM SPRINGS 161KV CKT 1	375	0 03176	102 6788	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
FDNS	06ALL	3	14G	G12_027	FROM->TO	TUCXFR345230	300	0 03966	101 9	BASE CASE
FDNS	01ALL	0	14G	G12_028	FROM->TO	CANTON - OKEENE 69KV CKT 1	48	0 04701	104 1149	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	FROM->TO	CANTON - OKEENE 69KV CKT 1	48	0 04701	102 7278	CEDARDALE - OKEENE 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04701	135 2877	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04701	133 4552	CEDARDALE - OKEENE 138KV CKT 1
FDNS	1	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04822	122 1997	DBL-TGA-MATT
FDNS	1	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04697	118 3616	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	1	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04697	116 7837	CEDARDALE - OKEENE 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04975	116 5201	DEWEY - SOUTHARD 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04912	115 278	DBL-G1216-TH
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04869	114 3395	DBL-WICH-THI
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04975	114 1902	ROMAN NOSE - SOUTHARD 138KV CKT 1
FDNS	03ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04599	113 3075	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04975	113 1353	EL RENO - ROMAN NOSE 138KV CKT 1
FDNS	03ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04599	111 8372	CEDARDALE - OKEENE 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 03486	111.0491	OKEENE (OKEENE) 138/69/13 8KV TRANSFORMER CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04814	110 6478	BASE CASE
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04827	106 2292	G11_051T 345 00 - TATONGA7 345 00 345KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04827	102 7799	G11_051T 345 00 - WOODWARD DISTRICT EHV 345KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 0484	102 7307	KNOBHILL - MOORELAND 138KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04816	102 5526	MATHWSN7 345 00 - TATONGA7 345 00 345KV CKT 1
FDNS	01ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04816	102 5526	MATHWSN7 345 00 - TATONGA7 345 00 345KV CKT 2
FDNS	1	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04972	101 4776	DEWEY - SOUTHARD 138KV CKT 1
FDNS	3	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04602	100 4196	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	03ALL	0	14G	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0 04723	100 0719	DBL-TGA-MATT
FDNS	00G12_028	0	24SP	G12_028	FROM->TO	GOTEB0 - LONEWOLF 69KV CKT 1	65	0 26995	99 6	ELK CITY (ELKCTY-4) 138/69/13 8KV TRANSFORMER CKT 1
FDNS	07ALL	0	14G	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0 04313	111 4219	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	07ALL	0	14G	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0 04313	108 4491	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	06ALL	0	14G	G12_028	FROM->TO	LAWEASOKLUNI	425	0 04934	140 1	DBL-WICH-THI
FDNS	6	0	14G	G12_028	FROM->TO	LAWEASOKLUNI	425	0 04847	121 2	BASE CASE
FNSL-Blown up	03ALL	0	14G	G12_028	-	Non-converged Contingency	0	0 10631	-	DBL-WICH-THI
FDNS	06ALL	0	14G	G12_028	FROM->TO	TUCXFR345230	300	0 03308	102 6	BASE CASE

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC*LOADING (% MVA)	CONTINGENCY
FDNS	03ALL	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04599	114 5256	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	03ALL	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04599	112 6961	CEDARDALE - OKEENE 138KV CKT 1
FDNS	03ALL	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04601	101 3121	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	03ALL	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04826	100 4532	DBL-WICH-THI
FDNS	03ALL	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04722	100 4375	DBL-TGA-MATT
FDNS	00G12_028	2 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04601	99 6	CEDARDALE - OKEENE 138KV CKT 1
FDNS	00G12_028	2 14SP	G12_028	G12_028	FROM->TO	GOTTEBO - LONEWOLF 69KV CKT 1	65	0.26995	99 6	ELK CITY (ELKCTY-4) 138/69/13 8KV TRANSFORMER CKT 1
FDNS	07ALL	2 14G	G12_028	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0.04313	111 4219	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	07ALL	2 14G	G12_028	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0.04313	108 4491	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	FROM->TO	CANTON - OKEENE 69KV CKT 1	48	0.04699	102 7371	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	FROM->TO	CANTON - OKEENE 69KV CKT 1	48	0.04699	101 4265	CEDARDALE - OKEENE 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04699	133 5121	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04699	132 0156	CEDARDALE - OKEENE 138KV CKT 1
FDNS	1	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.0482	120 0132	DBL-TGA-MATT
FDNS	1	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04695	116 9757	CEDARDALE - MOORELAND 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04974	115 3609	DEWEY - SOUTHWARD 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04695	115 2573	CEDARDALE - OKEENE 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.0491	114 1758	DBL-G1216-TH
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04974	112 993	ROMAN NOSE - SOUTHWARD 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04974	111 9241	EL RENO - ROMAN NOSE 138KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.03485	110 0434	OKEENE (OKEENE) 138/69/13 8KV TRANSFORMER CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04813	109 4412	BASE CASE
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.0485	109 2502	DBL-WICH-THI
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04825	104 4346	G11_0511 345 00 - TATONGA7 345 00 345KV CKT 1
FDNS	01ALL	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.04838	100 7584	KNOBHILL - MOORELAND 138KV CKT 1
FDNS	1	3 14G	G12_028	G12_028	TO->FROM	CANTON - TALOGA 69KV CKT 1	39	0.0497	100 3915	DEWEY - SOUTHWARD 138KV CKT 1
FDNS	00G12_028	3 24SP	G12_028	G12_028	FROM->TO	GOTTEBO - LONEWOLF 69KV CKT 1	65	0.26995	99 6	ELK CITY (ELKCTY-4) 138/69/13 8KV TRANSFORMER CKT 1
FDNS	07ALL	3 14G	G12_028	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0.04317	112 2497	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	07ALL	3 14G	G12_028	G12_028	FROM->TO	GRAPEVINE INTERCHANGE (PENN 0257751) 230/115/13 2KV TRANSFORMER CKT 1	112	0.04317	109 2641	GRAPEVINE INTERCHANGE - NICHOLS STATION 230KV CKT 1
FDNS	06ALL	3 14G	G12_028	G12_028	FROM->TO	LAWESOKLUNI	425	0.04948	139 2	BASE CASE
FDNS	6	3 14G	G12_028	G12_028	FROM->TO	LAWESOKLUNI	425	0.04862	120 3	BASE CASE
FDNS	06ALL	3 14G	G12_028	G12_028	FROM->TO	TUCKER45230	300	0.03316	101 9	BASE CASE
FDNS	06ALL	3 14G	G12_031	G12_031	FROM->TO	LAWESOKLUNI	425	0.05547	140 1	DBL-THIS-CLR
FDNS	6	0 14G	G12_031	G12_031	FROM->TO	LAWESOKLUNI	425	0.0546	121 2	BASE CASE
FDNS	03ALL	0 14G	G12_031	G12_031	FROM->TO	Non-converged Contingency	0	0.03202	-	DBL-WICH-THI
FDNS	06ALL	0 14G	G12_031	G12_031	FROM->TO	TUCKER45230	300	0.04425	102 6	BASE CASE
FDNS	06ALL	3 14G	G12_031	G12_031	FROM->TO	LAWESOKLUNI	425	0.0554	139 2	BASE CASE
FDNS	06ALL	3 14G	G12_031	G12_031	FROM->TO	LAWESOKLUNI	425	0.05494	120 3	BASE CASE
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	TUCKER45230	300	0.04422	101 9	BASE CASE
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	LAWESOKLUNI	425	0.03319	140 1	DBL-THIS-CLR
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	LAWESOKLUNI	425	0.03232	121 2	BASE CASE
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	TUCKER45230	300	0.03743	102 6	BASE CASE
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	LAWESOKLUNI	425	0.03271	139 2	BASE CASE
FDNS	6	3 14G	G12_032	G12_032	FROM->TO	LAWESOKLUNI	425	0.03185	120 3	BASE CASE
FDNS	06ALL	3 14G	G12_032	G12_032	FROM->TO	TUCKER45230	300	0.03718	101 9	BASE CASE
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	AREMINGTON 138 00 - FAIRFAX 138KV CKT 1	174	0.03432	101 36	SHIDLER - WEST PAWHUSKA 138KV CKT 1
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	AREMINGTON 138 00 - FAIRFAX 138KV CKT 1	174	0.03432	100 9752	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	LAWESOKLUNI	425	0.03527	140 1	DBL-WICH-THI
FDNS	6	0 14G	G12_033	G12_033	FROM->TO	LAWESOKLUNI	425	0.0344	121 2	BASE CASE
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	TUCKER45230	300	0.03911	102 6	BASE CASE
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	LAWESOKLUNI	425	0.03509	139 2	BASE CASE
FDNS	6	3 14G	G12_033	G12_033	FROM->TO	LAWESOKLUNI	425	0.03423	120 3	BASE CASE
FDNS	06ALL	3 14G	G12_033	G12_033	FROM->TO	TUCKER45230	300	0.03901	101 9	BASE CASE
FDNS	06ALL	3 14G	G12_034	G12_034	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0.05622	106 369	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_034	0 14SP	G12_034	G12_034	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0.05622	106 1229	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	0	0 14SP	G12_034	G12_034	FROM->TO	LUBBOCK SOUTH INTERCHANGE (A88 LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0.0305	100 3263	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0 14SP	G12_034	G12_034	FROM->TO	LUBBOCK SOUTH INTERCHANGE (A88 LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0.0305	100 2788	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0 24SP	G12_034	G12_034	FROM->TO	YOKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0.05717	99 8	CKT 2

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G12_034	0	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_034	0	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4079	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4071	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5396	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5388	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	19SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05923	99 5	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	3	14SP	G12_034	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05628	106 2078	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_034	3	14SP	G12_034	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03049	100 271	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	3	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_034	3	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4055	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	3	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5372	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0A	14SP	G12_034	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05651	100 2996	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_034	0A	24SP	G12_034	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09405	99 6	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_034	0A	14SP	G12_034	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09273	99 5	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 3407	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0A	24SP	G12_034	TO->FROM	PCA INTERCHANGE - REDDY 3115 00 115KV CKT 1	160	0 0385	102 0594	CUNNINGHAM STATION - POTASH JUNCTION INTERCHANGE 230KV CKT 1
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2131	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2021	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	SPP-SWPS-K37
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0A	14SP	G12_034	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	SPP-SWPS-K37
FDNS	00G12_034	0A	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05719	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_034	0A	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	103 4371	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_034	0A	24SP	G12_034	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	100 5585	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	14SP	G12_035	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05622	106 369	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_035	0	14SP	G12_035	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05622	106 1229	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	0	0	14SP	G12_035	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 3263	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0	14SP	G12_035	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 2788	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_035	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_035	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4079	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4071	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5396	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5388	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	19SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05923	99 5	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	3	14SP	G12_035	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05628	106 2078	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_035	3	14SP	G12_035	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03049	100 271	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	3	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G12_035		3 24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4055	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035		3 24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5372	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0A	14SP	G12_035	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05651	100 2996	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_035	0A	24SP	G12_035	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09405	99 6	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_035	0A	14SP	G12_035	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09273	99 5	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 3407	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0A	24SP	G12_035	TO->FROM	PCA INTERCHANGE - REDDY 3115 00 115KV CKT 1	160	0 0385	102 0594	CUNNINGHAM STATION - POTASH JUNCTION INTERCHANGE 230KV CKT 1
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2131	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2021	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2021	SPP-SWPS-K37
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0A	14SP	G12_035	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	SPP-SWPS-K37
FDNS	00G12_035	0A	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05719	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_035	0A	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	103 4371	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_035	0A	24SP	G12_035	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	100 5585	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0 14SP	G12_036	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05622	106 369	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1	
FDNS	00G12_036	0	14SP	G12_036	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05622	106 1229	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	0	0 14SP	G12_036	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 3263	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1	
FDNS	00G12_036	0	14SP	G12_036	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 2788	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0 24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	
FDNS	00G12_036	0	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_036	0	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4079	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0 24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4071	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	
FDNS	00G12_036	0	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5396	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0 24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5388	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	
FDNS	0	0 19SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05923	99 5	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	
FDNS	00G12_036	3	14SP	G12_036	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05628	106 2078	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_036	3	14SP	G12_036	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03049	100 271	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	3	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05717	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_036	3	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	103 4055	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	3	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05926	100 5372	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	0A	14SP	G12_036	TO->FROM	BAILEY COUNTY REC-EARTH INTERCHANGE - PLANT X STATION 115KV CKT 1	160	0 05651	100 2996	DEAF SMITH COUNTY INTERCHANGE - PLANT X STATION 230KV CKT 1
FDNS	00G12_036	0A	24SP	G12_036	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09405	99 6	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_036	0A	14SP	G12_036	TO->FROM	DENVER CITY INTERCHANGE N - MUSTANG STATION N 115KV CKT 1	309	0 09273	99 5	DENVER CITY INTERCHANGE S - MUSTANG STATION N 115KV CKT 2
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	LUBBOCK SOUTH INTERCHANGE (ABB LLM60043) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0305	100 3407	LUBBOCK EAST INTERCHANGE (ENRCO 136162) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	0A	24SP	G12_036	TO->FROM	PCA INTERCHANGE - REDDY 3115 00 115KV CKT 1	160	0 0385	102 0594	CUNNINGHAM STATION - POTASH JUNCTION INTERCHANGE 230KV CKT 1
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2131	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2021	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	101 2021	SPP-SWPS-K37
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE - TOLK STATION WEST 230KV CKT 1
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	LAMB COUNTY INTERCHANGE (WH ALM20172) 230/115/13 2KV TRANSFORMER CKT 1

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	00G12_036	0A	14SP	G12_036	FROM->TO	PLANT X STATION (WH ALM20171) 230/115/13 2KV TRANSFORMER CKT 1	252	0 03755	99 7	SPP-SWPS-K37
FDNS	00G12_036	0A	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1	150	0 05719	99 8	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_036	0A	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	103 4371	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	00G12_036	0A	24SP	G12_036	FROM->TO	YOAKUM COUNTY INTERCHANGE (PENN C010585) 230/115/13 2KV TRANSFORMER CKT 2	150	0 05928	100 5585	YOAKUM COUNTY INTERCHANGE (GE M100899) 230/115/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 05265	104 1894	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_037	0	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 05265	104 1887	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	0	0	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 05265	101 3786	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_037	0	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 05265	101 3779	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_037	3	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0527	104 2057	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	00G12_037	3	24SP	G12_037	FROM->TO	TUCO INTERCHANGE (GE M102345) 230/115/13 2KV TRANSFORMER CKT 1	252	0 0527	101 3947	TUCO INTERCHANGE (ENRCO 136401) 230/115/13 2KV TRANSFORMER CKT 2
FDNS	0BALL	0	14G	G12_040	FROM->TO	4REMINGTON 138 00 - FAIRFAX 138KV CKT 1	174	0 07568	101 36	SHIDLER - WEST PAWHUSKA 138KV CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	4REMINGTON 138 00 - FAIRFAX 138KV CKT 1	174	0 07568	100 9752	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
FDNS	00G12_040	0	24SP	G12_040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0 04079	109 3141	CRESWELL - OAK 69KV CKT 1
FDNS	00G12_040	0	19SP	G12_040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0 04077	105 8712	CRESWELL - OAK 69KV CKT 1
FDNS	0	0	24SP	G12_040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0 04079	105 8098	CRESWELL - OAK 69KV CKT 1
FDNS	0	0	19SP	G12_040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0 04077	102 0933	CRESWELL - OAK 69KV CKT 1
FDNS	00G12_040	0	24SP	G12_040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0 04601	107 7788	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	00G12_040	0	19SP	G12_040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0 04599	104 5257	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	0BALL	0	14G	G12_040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0 04592	104 2009	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	0	0	24SP	G12_040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0 04601	101 7759	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08G12_040	0	14G	G12_040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0 04592	99 6	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL - OAK 69KV CKT 1	108	0 05071	103 0942	CRESWELL - PARIS 69KV CKT 1
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL - OAK 69KV CKT 1	108	0 05071	100 4541	CRESWELL - PARIS 69KV CKT 1
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL - OAK 69KV CKT 1	108	0 05069	99 8	CRESWELL - PARIS 69KV CKT 1
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	111 8615	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	111 8615	WR-B3-28
FDNS	00NR	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09955	111 4406	WR-B3-28
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	108 3515	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	108 3515	WR-B3-28
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10092	107 891	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10092	107 891	WR-B3-28
FDNS	00NR	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09955	107 7049	WR-B3-28
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	107 0643	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	107 0643	WR-B3-28
FDNS	00NR	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09958	105 6527	WR-B3-28
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10092	104 8183	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10092	104 8183	WR-B3-28
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	103 2594	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10095	103 2594	WR-B3-28
FDNS	00NR	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09958	102 5359	WR-B3-28
FDNS	0	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10093	102 3981	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10093	102 3981	WR-B3-28
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10016	102 1105	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10016	102 1105	WR-B3-28
FDNS	00NR	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 0986	101 2938	WR-B3-28
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09996	101 2404	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09996	101 2404	WR-B3-28
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10016	100 2	WR-B3-28
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10016	99 9	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09996	99 9	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09996	99 9	WR-B3-28
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10082	111 7272	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10082	108 2629	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10079	107 7738	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10082	106 9274	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10079	104 7413	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	24SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10082	103 1398	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0	0	19SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10079	102 2853	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10004	101 9945	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09983	101 0919	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	00G12_040	0	14SP	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 10004	99 9	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	0BALL	0	14G	G12_040	FROM->TO	CRESWELL (CRESWL2X) 138/69/13 2KV TRANSFORMER CKT 1	110	0 09983	99 8	CRESWELL (CRESWL1X) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06ALL	0	14G	G12_040	FROM->TO	LAWEASOKLUNI	425	0 03319	140 1	DBL-WICH-THI

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TC%LOADING (% MVA)	TDF	CONTINGENCY
FDNS		6	0 14G	G12 040	FROM->TO	LAWASOKUNI	425	0.03232	121.2	BASE CASE
FDNS	06G12_040		0 24SP	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04601	112.178	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	06G12_040		0 19SP	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04599	109.1605	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08ALL		0 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	107.4391	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS		0	0 24SP	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04601	106.2079	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08G12_040		0 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	103.2114	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS		0	0 19SP	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04599	102.3191	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS		8	0 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	101.6859	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	06ALL		0 14G	G12 040	FROM->TO	TUCKER345230	300	0.03759	102.6	BASE CASE
FDNS	08ALL		2 14G	G12 040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0.04592	104.2009	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08G12_040		2 14G	G12 040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0.04592	99.6	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	00NR		2 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09955	111.4406	WR-B3-28
FDNS	00NR		2 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09955	111.4406	WR-B3-28
FDNS	00NR		2 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09955	107.7049	WR-B3-28
FDNS	00NR		2 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09955	107.7049	WR-B3-28
FDNS	00NR		2 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09958	106.6527	WR-B3-28
FDNS	00NR		2 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09958	106.6527	WR-B3-28
FDNS	00NR		2 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09958	102.5359	WR-B3-28
FDNS	00NR		2 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09958	102.5359	WR-B3-28
FDNS	00NR		2 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.0986	101.2938	WR-B3-28
FDNS	00NR		2 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.0986	101.2938	WR-B3-28
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09996	101.2404	WR-B3-28
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09996	101.2404	WR-B3-28
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09996	99.9	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09996	99.9	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09983	101.0919	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		2 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09983	99.8	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08G12_040		2 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	107.4391	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08G12_040		2 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	103.2114	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	8		2 14G	G12 040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0.04592	101.6859	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	00NR		3 24SP	G12 040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0.04078	105.7372	CRESWELL - OAK 69KV CKT 1
FDNS	06G12_040		3 19SP	G12 040	TO->FROM	ARKANSAS CITY - PARIS 69KV CKT 1	72	0.04078	105.7372	CRESWELL - OAK 69KV CKT 1
FDNS	06G12_040		3 24SP	G12 040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0.04601	107.4391	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	06G12_040		3 19SP	G12 040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0.04601	104.3154	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08ALL		3 14G	G12 040	TO->FROM	CITY OF WINFIELD - RAINBOW 69KV CKT 1	43	0.04594	103.3219	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL - OAK 69KV CKT 1	108	0.05073	103.1831	CRESWELL - PARIS 69KV CKT 1
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL - OAK 69KV CKT 1	108	0.05073	99.7	CRESWELL - PARIS 69KV CKT 1
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10099	111.789	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10099	111.789	WR-B3-28
FDNS	00NR		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.0996	107.7351	WR-B3-28
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10099	108.287	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10099	108.287	WR-B3-28
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10096	107.7351	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10096	107.7351	WR-B3-28
FDNS	00NR		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.0996	107.3805	WR-B3-28
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09962	105.2673	WR-B3-28
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10096	104.6736	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10096	104.6736	WR-B3-28
FDNS	00NR		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09962	102.1647	WR-B3-28
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10021	101.949	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10021	101.949	WR-B3-28
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.1	101.018	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.1	101.018	WR-B3-28
FDNS	00NR		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09865	100.2705	WR-B3-28
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10021	100.1	WR-B3-28
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10021	99.8	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.1	99.7	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.1	99.7	WR-B3-28
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10086	111.6549	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 24SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10086	108.1988	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10083	107.8182	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 19SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10083	104.9566	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10008	101.6333	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09987	100.2703	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	06G12_040		3 14SP	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.10008	99.7	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1
FDNS	08ALL		3 14G	G12 040	FROM->TO	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1	110	0.09987	99.6	CRESWELL (CRESWLX) 138/69/13 2KV TRANSFORMER CKT 1

SOLUTION	GROUP	SCENARIO	SEASON	SOURCE	DIRECTION	MONITORED ELEMENT	RATEB (MVA)	TDF	TC%LOADING (% MVA)	CONTINGENCY
FDNS	06ALL	3	14G	G12_040	FROM->TO	LAWEASOKLUNI	425	0 03276	139 2	BASE CASE
FDNS	6	3	14G	G12_040	FROM->TO	LAWEASOKLUNI	425	0 03189	120 3	BASE CASE
FDNS	00G12_040	3	24SP	G12_040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0 04603	112 0455	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	00G12_040	3	19SP	G12_040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0 04601	108 9481	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08ALL	3	14G	G12_040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0 04594	107 1572	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	08G12_040	3	14G	G12_040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0 04594	102 9126	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	8	3	14G	G12_040	FROM->TO	OAK - RAINBOW 69KV CKT 1	43	0 04594	101 3867	OAK - STROTHER FIELD (CITY OF WINFIELD) 69KV CKT 1
FDNS	06ALL	3	14G	G12_040	FROM->TO	TUCXFR345230	300	0 03736	101 9	BASE CASE

Southwest Power Pool, Inc.

Appendix I: Power Flow Analysis (Category "C" Contingencies)

I: Power Flow Analysis (Category "C" Contingencies)

Available on Request

Docket No. 48253

Hale Wind Interconnect CCN

Hale Wind Schematic



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

VIA FIRST CLASS MAIL

«Landowner_Name»
«Address»
«City», «State» «Zip»

Dear Landowner:

***Application of Southwestern Public Service Company to Amend A Certificate of Convenience
and Necessity for A Proposed 230-kV Transmission Line Within Hale County, Texas
(Hale Wind Interconnection)***

PUBLIC UTILITY COMMISSION OF TEXAS DOCKET NO. 48253

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission's approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

The Proposed Project will involve the construction of a new 230-kV transmission line, which will originate at the existing TUCO Substation, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54, in Hale County, Texas. The Proposed Project will terminate at the new Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275, in Hale County, Texas.

The Southwest Power Pool identified the proposed transmission line as a requirement of a Generator Interconnection Agreement. The Proposed Project is needed for the generation from the Hale Wind Project to be accessible to SPS's customers and the SPP Integrated Marketplace.

The proposed 230-kV transmission line will be constructed utilizing primarily single-circuit, concrete monopole structures, which require a smaller surface area than H-frame structures. Angle structures will be either guyed concrete monopoles or self-supporting concrete monopoles. The proposed transmission line will be constructed entirely on new right-of-way ("ROW") with a proposed easement width of 150

feet. In some circumstances, a wider or more narrow easement may be necessary, but these locations and easement widths cannot be determined until the route is approved by the Commission and surveyed.

SPS is proposing one route with a total cost of \$9,441,644 consisting of \$9,317,470 for transmission facilities and \$124,174 for substation facilities.

Your land may be directly affected in this docket. If SPS's route is approved by the PUC, SPS will have the right to build a facility, which may directly affect your land. This docket will not determine the value of your land or the value of an easement if one is needed by SPS to build the facility. If you have questions about the transmission line you may contact Bryant Coon at 806-378-2757 or James Bagley at 806-378-2868. A map of SPS's proposed route is included with this letter, along with a written description of the proposed route. Larger, more detailed routing maps may be viewed at SPS's offices at 790 South Buchanan Street, 4th Floor, Amarillo, Texas 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at <http://www.powerfortheplains.com>.

The PUC has a brochure entitled "Landowners and Transmission Line Cases at the PUC" that provides basic information about how you may participate in this docket, and how you may contact the PUC. Please read this brochure carefully. The brochure includes sample forms for making comments and for making a request to intervene as a party in this docket. Copies of the brochure are enclosed and are also available from Bryant Coon at 806-378-2757, James Bagley 806-378-2868, or may be downloaded from the PUC's website at <http://www.puc.texas.gov/>. ***The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene in the docket. It is important for an affected person to intervene because the utility is not obligated to keep affected persons informed of the PUC's proceedings and cannot predict which route may or may not be approved by the PUC.***

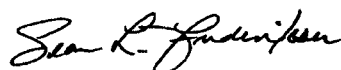
In addition to the contacts listed in the brochure, you may call the PUC's Customer Assistance Hotline at 888-782-8477. Hearing- and speech-impaired individuals with text telephones ("TTY") may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989.

If you wish to participate in this proceeding by becoming an intervenor, the deadline for intervention in the proceeding is July 9, 2018, and the PUC should receive a letter from you requesting intervention by that date. Mail the request for intervention and 10 copies of the request to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, Texas 78711-3326

Persons who wish to intervene in the docket must also mail a copy of their request for intervention to all parties in the docket and all persons that have pending motions to intervene, at or before the time the request for intervention is mailed to the PUC. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket. The enclosed brochure explains how you can access these filings.

Sincerely,



Sean L. Frederiksen, Manager
Siting and Land Rights
Enclosures

Xcel Energy Inc.
Hale Wind Interconnection Project
230-kV Transmission Line
Hale County, Texas

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy has filed an application with the Public Utility Commission of Texas (PUC) to amend its Certificate of Convenience and Necessity (CCN) to construct the proposed Hale Wind Interconnection Project 230-kV transmission line. A detailed description of the proposed route is below.

PROPOSED ROUTE DESCRIPTION

The route begins at the western edge of the existing TUCO substation in Section 9, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54.

The route departs from the western edge of the existing TUCO Substation and runs overhead in a westerly direction for approximately 175 feet, crossing the existing Burlington Northern Santa Fe (BNSF) Railroad. The route then turns north and runs underground for approximately 750 feet, parallel to the existing BNSF Railroad, crossing beneath an existing 69-kV transmission line, an existing 115-kV transmission line, and two existing 230-kV transmission lines, then returns to an overhead configuration and continues in a northerly direction for approximately 2.38 miles, parallel to the existing BNSF Railroad, crossing FM 54, then an existing 69-kV transmission line, and then County Road (CR) 901. The route then turns east at Section 69 for approximately 0.57 mile parallel to the north side of CR 901, immediately crossing the BNSF Railroad and then crossing an existing 69-kV transmission line and CR 663. The route then turns north at Section 68 for 0.97 miles, paralleling the east side of CR 663 and crossing CR 275. After crossing CR 275, the route then immediately turns east at Section 67 for 3.04 miles parallel to the north side of CR 275, crossing an existing 230-kV transmission line, CR 857, CR 665 and CR 828. The route then turns north at Section 3 for 0.94 mile parallel to the east side of CR 828. The route then turns east at Section 3 for 6.39 miles parallel to the south side of CR 613, crossing and then paralleling the south side of an existing 345-kV transmission line, crossing CR 814, CR 684, and FM 400.

The route terminates in Section 45 at the proposed Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275.

Landowners and Transmission Line Cases at the PUC

Public Utility Commission of Texas



1701 N. Congress Avenue
P.O. Box 13326
Austin, Texas 78711-3326
(512) 936-7261
www.puc.state.tx.us

Effective: June 1, 2011

Purpose of This Brochure

This brochure is intended to provide landowners with information about proposed new transmission lines and the Public Utility Commission's ("PUC" or "Commission") process for evaluating these proposals. At the end of the brochure is a list of sources for additional information.

The following topics are covered in this brochure:

- How the PUC evaluates whether a new transmission line should be built,
- How you can participate in the PUC's evaluation of a line, and
- How utilities acquire the right to build a transmission line on private property.

You are receiving the enclosed formal notice because one or more of the routes for a proposed transmission line may require an easement or other property interest across your property, or the centerline of the proposed project may come within 300 feet of a house or other habitable structure on your property. This distance is expanded to 500 feet if the proposed line is greater than 230 kilovolts (kV). For this reason, your property is considered **directly affected land**. This brochure is being included as part of the formal notice process.

If you have questions about the proposed routes for a transmission line, you may contact the applicant. The applicant also has a more detailed map of the proposed routes for the transmission line and nearby habitable structures. The applicant may help you understand the routing of the project and the application approval process in a transmission line case but cannot provide legal advice or represent you. *The applicant cannot predict which route may or may not be approved by the PUC. The PUC decides which route to use for the transmission line, and the applicant is not obligated to keep you informed of the PUC's proceedings. The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene, which is discussed below.*

The PUC is sensitive to the impact that transmission lines have on private property. At the same time, transmission lines deliver electricity to millions of homes and businesses in Texas, and new lines are sometimes needed so that customers can obtain reliable, economical power.

The PUC's job is to decide whether a transmission line application should be approved and on which route the line should be constructed. The PUC values input from landowners and encourages you to participate in this process by intervening in the docket.

PUC Transmission Line Case

Texas law provides that most utilities must file an application with the PUC to obtain or amend a Certificate of Convenience and Necessity (CCN) in order to build a new transmission line in Texas. The law requires the PUC to consider a number of factors in deciding whether to approve a proposed new transmission line.

The PUC may approve an application to obtain or amend a CCN for a transmission line after considering the following factors:

- Adequacy of existing service;
- Need for additional service;
- The effect of approving the application on the applicant and any utility serving the proximate area;
- Whether the route utilizes existing compatible rights-of-way, including the use of vacant positions on existing multiple-circuit transmission lines;
- Whether the route parallels existing compatible rights-of-way;
- Whether the route parallels property lines or other natural or cultural features;
- Whether the route conforms with the policy of prudent avoidance (which is defined as the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort); and
- Other factors such as community values, recreational and park areas, historical and aesthetic values, environmental integrity, and the probable improvement of service or lowering of cost to consumers in the area.

If the PUC decides an application should be approved, it will grant to the applicant a CCN or CCN amendment to allow for the construction and operation of the new transmission line.

Application to Obtain or Amend a CCN:

An application to obtain or amend a CCN describes the proposed line and includes a statement from the applicant describing the need for the line and the impact of building it. In addition to the routes proposed by the applicant in its application, the possibility exists that additional routes may be developed, during the course of a CCN case, that could affect property in a different manner than the original routes proposed by the applicant.

The PUC conducts a case to evaluate the impact of the proposed line and to decide which route should be approved. Landowners who would be affected by a new line can:

- informally file a protest, or
- formally participate in the case as an intervenor.

Filing a Protest (informal comments):

If you do not wish to intervene and participate in a hearing in a CCN case, you may file **comments**. An individual or business or a group who files only comments for or against any aspect of the transmission line application is considered a “protestor.”

Protestors make a written or verbal statement in support of or in opposition to the utility’s application and give information to the PUC staff that they believe supports their position.

Protestors are **not** parties to the case, however, and do not have the right to:

- Obtain facts about the case from other parties;
- Receive notice of a hearing, or copies of testimony and other documents that are filed in the case;
- Receive notice of the time and place for negotiations;
- File testimony and/or cross-examine witnesses;
- Submit evidence at the hearing; or
- Appeal P.U.C. decisions to the courts.

If you want to make comments, you may either send written comments stating your position, or you may make a statement on the first day of the hearing. If you have not intervened, however, you will not be able to participate as a party in the hearing. Only parties may submit evidence and ***the PUC must base its decision on the evidence.***

Intervening in a Case:

To become an intervenor, you must file a statement with the PUC, no later than the date specified in the notice letter sent to you with this brochure, requesting intervenor status (also referred to as a party). This statement should describe how the proposed transmission line would affect your property. Typically, intervention is granted only to directly affected landowners. However, any landowner may request to intervene and obtain a ruling on his or her specific fact situation and concerns. A sample form for intervention and the filing address are attached to this brochure, and may be used to make your filing. A letter requesting intervention may also be used in lieu of the sample form for intervention.

If you decide to intervene and become a party in a case, you will be required to follow certain procedural rules:

- You are required to timely respond to requests for information from other parties who seek information.
- If you file testimony, you must appear at a hearing to be cross-examined.
- If you file testimony or any letters or other documents in the case, you must send copies of the documents to every party in the case and you must file multiple copies with the PUC.
- If you intend to participate at the hearing and you do not file testimony, you must at least file a statement of position, which is a document that describes your position in the case.
- Failure to comply with these procedural rules may serve as grounds for you to be dismissed as an intervenor in the case.
- If you wish to participate in the proceedings it is very important to attend any prehearing conferences.

Intervenors may represent themselves or have an attorney to represent them in a CCN case. If you intervene in a case, you may want an attorney to help you understand the PUC’s procedures and the laws and rules that the PUC applies in deciding whether to approve a transmission line. The PUC encourages landowners to intervene and become parties.

Stages of a CCN Case:

If there are persons who intervene in the case and oppose the approval of the line, the PUC may refer the case to an administrative law judge (ALJ) at the State Office of Administrative Hearings (SOAH) to conduct a hearing, or the Commission may elect to conduct a hearing itself. The hearing is a formal proceeding, much like a trial, in which testimony is presented. In the event the case is referred to SOAH, the ALJ makes a recommendation to the PUC on whether the application should be approved and where and how the line should be routed.

There are several stages of a CCN case:

- The ALJ holds a prehearing conference (usually in Austin) to set a schedule for the case.
- Parties to the case have the opportunity to conduct discovery; that is, obtain facts about the case from other parties.
- A hearing is held (usually in Austin), and parties have an opportunity to cross-examine the witnesses.
- Parties file written testimony before the date of the hearing. Parties that do not file written testimony or statements of position by the deadline established by the ALJ may not be allowed to participate in the hearing on the merits.
- Parties may file written briefs concerning the evidence presented at the hearing, but are not required to do so.
- In deciding where to locate the transmission line and other issues presented by the application, the ALJ and Commission rely on factual information submitted as evidence at the hearing by the parties in the case. In order to submit factual information as evidence (other than through cross-examination of other parties' witnesses), a party must have intervened in the docket and filed written testimony on or before the deadline set by the ALJ.
- The ALJ makes a recommendation, called a **proposal for decision**, to the Commission regarding the case. Parties who disagree with the ALJ's recommendation may file exceptions.
- The Commissioners discuss the case and decide whether to approve the application. The Commission may approve the ALJ's recommendation, approve it with specified changes, send the case back to the ALJ for further consideration, or deny the application. The written decision rendered by the Commission is called a **final order**. Parties who believe that the Commission's decision is in error may file motions for rehearing, asking the Commission to reconsider the decision.
- After the Commission rule on the motion for rehearing, parties have the right to appeal the decision to district court in Travis County.
-

Right to Use Private Property

The Commission is responsible for deciding whether to approve a CCN application for a proposed transmission line. If a transmission line route is approved that impacts your property, the electric utility must obtain the right from you to enter your property and to build, operate, and maintain the transmission line. This right is typically called an easement.

Utilities may buy easements through a negotiated agreement, but they also have the power of eminent domain (condemnation) under Texas law. Local courts, not the PUC, decide issues concerning easements for rights-of-way. The PUC does not determine the value of property.

The PUC final order in a transmission case normally requires a utility to take certain steps to minimize the impact of the new transmission line on landowners' property and on the environment. For example, the order normally requires steps to minimize the possibility of erosion during construction and maintenance activities.

HOW TO OBTAIN MORE INFORMATION

The PUC's online filings interchange on the PUC website provides free access to documents that are filed with the Commission in Central Records. The docket number, also called a control number on the PUC website, of a case is a key piece of information used in locating documents in the case. You may access the Interchange by visiting the PUC's website home page at www.puc.state.tx.us and navigate the website as follows:

- Select "Filings."
- Select "Filings Search."
- Select "Filings Search."
- Enter 5-digit Control (Docket) Number. *No other information is necessary.*
- Select "Search." *All of the filings in the docket will appear in order of date filed.*
- Scroll down to select desired filing.
- Click on a blue "Item" number at left.
- Click on a "Download" icon at left.

Documents may also be purchased from and filed in Central Records. For more information on how to purchase or file documents, call Central Records at the PUC at 512-936-7180.

PUC Substantive Rule 25.101, Certification Criteria, addresses transmission line CCNs and is available on the PUC's website, or you may obtain copies of PUC rules from Central Records.

Always include the docket number on all filings with the PUC. You can find the docket number on the enclosed formal notice. Send documents to the PUC at the following address.

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P.O. Box 13326
Austin, TX 78711-3326

The information contained within this brochure is not intended to provide a comprehensive guide to landowner rights and responsibilities in transmission line cases at the PUC. This brochure should neither be regarded as legal advice nor should it be a substitute for the PUC's rules. However, if you have questions about the process in transmission line cases, you may call the PUC's Legal Division at 512-936-7261. The PUC's Legal Division may help you understand the process in a transmission line case but cannot provide legal advice or represent you in a case. You may choose to hire an attorney to decide whether to intervene in a transmission line case, and an attorney may represent you if you choose to intervene.

Communicating with Decision-Makers

Do not contact the ALJ or the Commissioners by telephone or email. They are not allowed to discuss pending cases with you. They may make their recommendations and decisions only by relying on the evidence, written pleadings, and arguments that are presented in the case.

Request to Intervene in PUC Docket No. 48253

The following information must be submitted by the person requesting to intervene in this proceeding. This completed form will be provided to all parties in this docket. **If you DO NOT want to be an intervenor, but still want to file comments, please complete the "Comments" page.**

Mail this completed form and 10 copies to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, TX 78711-3326

First Name: _____ Last Name: _____

Phone Number: _____ Fax Number: _____

Address, City, State: _____

I am requesting to intervene in this proceeding. As an INTERVENOR, I understand the following:

- I am a party to the case;
- I am required to respond to all discovery requests from other parties in the case;
- If I file testimony, I may be cross-examined in the hearing;
- If I file any documents in the case, I will have to provide a copy of that document to every other party in the case; and
- I acknowledge that I am bound by the Procedural Rules of the Public Utility Commission of Texas (PUC) and the State Office of Administrative Hearings (SOAH).

Please check one of the following:

- ☐ I own property with a habitable structure located near one or more of the utility's proposed routes for a transmission line.
- ☐ One or more of the utility's proposed routes would cross my property.
- ☐ Other. Please describe and provide comments. You may attach a separate page, if necessary. _____

Signature of person requesting intervention:

_____ Date: _____

Comments in Docket No. 48253

If you want to be a PROTESTOR only, please complete this form. Although public comments are not treated as evidence, they help inform the PUC and its staff of the public concerns and identify issues to be explored. The PUC welcomes such participation in its proceedings.

Mail this completed form and 10 copies to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, TX 78711-3326

First Name: _____ Last Name: _____

Phone Number: _____ Fax Number: _____

Address, City, State: _____

I am NOT requesting to intervene in this proceeding. As a PROTESTOR, I understand the following:

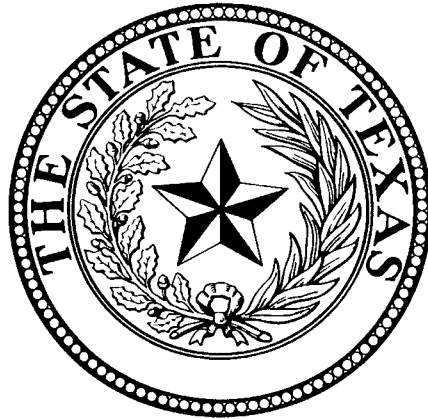
- I am NOT a party to this case;
- My comments are not considered evidence in this case; and
- I have no further obligation to participate in the proceeding.

Please check one of the following:

- ☐ I own property with a habitable structure located near one or more of the utility's proposed routes for a transmission line.
- ☐ One or more of the utility's proposed routes would cross my property.
- ☐ Other. Please describe and provide comments. You may attach a separate page, if necessary. _____

Signature of person submitting comments:

_____ Date: _____



THE STATE OF TEXAS
LANDOWNER'S
BILL OF RIGHTS

PREPARED BY THE



OFFICE OF THE
ATTORNEY GENERAL OF TEXAS



STATE OF TEXAS LANDOWNER'S BILL OF RIGHTS

This Landowner's Bill of Rights applies to any attempt by the government or a private entity to take your property. The contents of this Bill of Rights are prescribed by the Texas Legislature in Texas Government Code Sec. 402.031 and Chapter 21 of the Texas Property Code.

1. You are entitled to receive adequate compensation if your property is taken for a public use.
2. Your property can only be taken for a public use.
3. Your property can only be taken by a governmental entity or private entity authorized by law to do so.
4. The entity that wants to take your property must notify you that it wants to take your property.
5. The entity proposing to take your property must provide you with a written appraisal from a certified appraiser detailing the adequate compensation you are owed for your property.
6. The entity proposing to take your property must make a bona fide offer to buy the property before it files a lawsuit to condemn the property – which means the condemning entity must make a good faith offer that conforms with Chapter 21 of the Texas Property Code.
7. You may hire an appraiser or other professional to determine the value of your property or to assist you in any condemnation proceeding.
8. You may hire an attorney to negotiate with the condemning entity and to represent you in any legal proceedings involving the condemnation.
9. Before your property is condemned, you are entitled to a hearing before a court appointed panel that includes three special commissioners. The special commissioners must determine the amount of compensation the condemning entity owes for the taking of your property. The commissioners must also determine what compensation, if any, you are entitled to receive for any reduction in value of your remaining property.
10. If you are unsatisfied with the compensation awarded by the special commissioners, or if you question whether the taking of your property was proper, you have the right to a trial by a judge or jury. If you are dissatisfied with the trial court's judgment, you may appeal that decision.

CONDEMNATION PROCEDURE

Eminent domain is the legal authority that certain entities are granted that allows those entities to take private property for a public use. Private property can include land and certain improvements that are on that property.

Private property may only be taken by a governmental entity or private entity that is authorized by law to do so. Your property may be taken only for a public purpose. That means it can only be taken for a purpose or use that serves the general public. Texas law prohibits condemnation authorities from taking your property to enhance tax revenues or foster economic development.

Your property cannot be taken without adequate compensation. Adequate compensation includes the market value of the property being taken. It may also include certain damages if your remaining property's market value is diminished by the acquisition itself or by the way the condemning entity will use the property.

HOW THE TAKING PROCESS BEGINS

The taking of private property by eminent domain must follow certain procedures. First, the entity that wants to condemn your property must provide you a copy of this Landowner's Bill of Rights before - or at the same time - the entity first represents to you that it possesses eminent domain authority.

Second, if it has not been previously provided, the condemning entity must send this Landowner's Bill of Rights to the last known address of the person who is listed as the property owner on the most recent tax roll. This requirement stipulates that the Landowner's Bill of Rights must be provided to the property owner at least seven days before the entity makes a final offer to acquire the property.

Third, the condemning entity must make a bona fide offer to purchase the property. The requirements for a bona fide offer are contained in Chapter 21 of the Texas Property Code. At the time a purchase offer is made, the condemning entity must disclose any appraisal reports it produced or acquired that relate specifically to the property and were prepared in the ten years preceding the date of the purchase offer. You have the right to discuss the offer with others and to either accept or reject the offer made by the condemning entity.

CONDEMNATION PROCEEDINGS

If you and the condemning entity do not agree on the value of your property, the entity may begin condemnation proceedings. Condemnation is the legal process that eligible entities utilize to take private property. It begins with a condemning entity filing a claim for your property in court. If you live in a county where part of the property being condemned is located, the claim must be filed in that county. Otherwise, the condemnation claim can be filed in any county where at least part of the property being condemned is located. The claim must describe the property being condemned, state with specificity the public use, state the name of the landowner, state that the landowner and the condemning entity were unable to agree on the value of the property, state that the condemning entity provided the landowner with the Landowner's Bill of Rights, and state that the condemning entity made a bona fide offer to acquire the property from the property owner voluntarily.

SPECIAL COMMISSIONERS' HEARING

After the condemning entity files a condemnation claim in court, the judge will appoint three local landowners to serve as special commissioners. The judge will give you a reasonable period to strike one of the special commissioners. If a commissioner is struck, the judge will appoint a replacement. These special commissioners must live in the county where the condemnation proceeding is filed, and they must take an oath to assess the amount of adequate compensation fairly, impartially, and according to the law. The special commissioners are not legally authorized to decide whether the condemnation is necessary or if the public use is proper. Their role is limited to assessing adequate compensation for you. After being appointed, the special commissioners must schedule a hearing at the earliest practical time and place. The special commissioners are also required to give you written notice of the condemnation hearing.

You are required to provide the condemning entity any appraisal reports that were used to determine your claim about adequate compensation for the condemned property. Under a new law enacted in 2011, landowners' appraisal reports must be provided to the condemning entity either ten days after the landowner receives the report or three business days before the special commissioners' hearing - whichever is earlier. You may hire an appraiser or real estate professional to help you determine the value of your private property. Additionally, you can hire an attorney to represent you during condemnation proceedings.

At the condemnation hearing, the special commissioners will consider your evidence on the value of your condemned property, the damages to remaining property, any value added to the remaining property as a result of the condemnation, and the condemning entity's proposed use of your condemned property.

SPECIAL COMMISSIONERS' AWARD

After hearing evidence from all interested parties, the special commissioners will determine the amount of money that you should be awarded to adequately compensate you for your property. The special commissioners' decision is significant to you not only because it determines the amount that qualifies as adequate compensation, but also because it impacts who pays for the cost of the condemnation proceedings. Under the Texas Property Code, if the special commissioners' award is less than or equal to the amount the condemning entity offered to pay before the proceedings began, then you may be financially responsible for the cost of the condemnation proceedings. However, if the special commissioners' award is more than the condemning entity offered to pay before the proceedings began, then the condemning entity will be responsible for the costs associated with the proceedings.

The special commissioners are required to provide the court that appointed them a written decision. That decision is called the "Award." The Award must be filed with the court and the court must send written notice of the Award to all parties. After the Award is filed, the condemning entity may take possession of the property being condemned, even if either party appeals the Award of the special commissioners. To take possession of the property, the condemning entity must either pay the amount of the Award or deposit the amount of the Award into the court's registry. You have the right to withdraw funds that are deposited into the registry of the court.

OBJECTION TO THE SPECIAL COMMISSIONERS' AWARD

If either the landowner or the condemning entity is dissatisfied with the amount of the Award, either party can formally object to the Award. In order to successfully make this valuation objection, it must be filed in writing with the court. If neither party timely objects to the special commissioners' Award, the court will adopt the Award as the final judgment of the court.

If a party timely objects to the special commissioners' Award, the court will hear the case in the same manner that other civil cases are heard. Landowners who object to the Award and ask the court to hear the matter have the right to a trial and can elect whether to have the case decided by a judge or jury. The allocation of any trial costs is decided in the same manner that costs are allocated with the special commissioners' Award. After trial, either party may appeal any judgment entered by the court.

DISMISSAL OF THE CONDEMNATION ACTION

A condemning entity may file a motion to dismiss the condemnation proceeding if it decides it no longer needs your condemned property. If the court grants the motion to dismiss, the case is over and you are entitled to recover reasonable and necessary fees for attorneys, appraisers, photographers, and for other expenses incurred to the date of the hearing on the motion to dismiss.

If you wish to challenge the condemning entity's authority to take your property, you can lodge that challenge by filing a motion to dismiss the condemnation proceeding. Such a motion to dismiss would allege that the condemning entity did not have the right to condemn your property. For example, a landowner could challenge the condemning entity's claim that it seeks to take the property for a public use. If the court grants the landowner's motion, the court may award the landowner reasonable and necessary fees for attorneys, appraisers, photographers, and for other expenses incurred to the date of the hearing or judgment.

RELOCATION COSTS

If you are displaced from your residence or place of business, you may be entitled to reimbursement for reasonable expenses incurred while moving personal property from the residence or relocating the business to a new site. However, during condemnation proceedings, reimbursement for relocation costs may not be available if those costs are separately recoverable under another law. Texas law limits the total amount of available relocation costs to the market value of the property being moved. Further, the law provides that moving costs are limited to the amount that a move would cost if it were within 50 miles.

RECLAMATION OPTIONS

If private property was condemned by a governmental entity, and the public use for which the property was acquired is canceled before that property is used for that public purpose, no actual progress is made toward the public use within ten years or the property becomes unnecessary for public use within ten years, landowners may have the right to repurchase the property for the price paid to the owner by the entity at the time the entity acquired the property through eminent domain.

DISCLAIMER

The information in this statement is intended to be a summary of the applicable portions of Texas state law as required by HB 1495, enacted by the 80th Texas Legislature, Regular Session. This statement is not legal advice and is not a substitute for legal counsel.

ADDITIONAL RESOURCES

Further information regarding the procedures, timelines and requirements outlined in this document can be found in Chapter 21 of the Texas Property Code.

**Hale Wind Interconnect
D48253
Landowner List**

	Landowner Name_	Tract	Acreage	County	Address_	City_	State_	Zip_
1	Irish Family Limited Partnership	HCE1399	8 92	Hale	1801 Broadway	Lubbock	TX	79401
2	Delta Biotech, LLC	HCE1218	4 10	Hale	PO Box 1034	Flora	MS	39071
3	Glenn D & Phyllis Knight	HCE1474	13 80	Hale	6506 County Road 6420	Lubbock	TX	79416
4	Bob J Durham	HCE2255 HCE2261	18 20	Hale	2957 Interstate 27	Abernathy	TX	79311
5	Phillip Carl Trusts, Cynthia K Alexander, Trustee	HCE2287	9 86	Hale	6001 84th St	Lubbock	TX	79424
6	Kyle O & Shelly D Smith	HCE2085	17 45	Hale	909 W Lee St	Floydada	TX	79235
7	Shawn & Wendy Knight, Todd Knight	HCE2299	12 05	Hale	1601 Ave H	Abernathy	TX	79311
8	Tyson Lane Knight	HCE1223	7 88	Hale	205 Ave N	Abernathy	TX	79311
9	Bill & Debbie Foster	HCE2367	5 62	Hale	7001 N CR 2160	Lubbock	TX	79415
10	Hinton Vick	HCE2650	3 24	Hale	801 1st Street	Abernathy	TX	79311
11	Don D Stone	HCE1935 HCE2400 HCE2401	12 63	Hale	1760 CR 275	Abernathy	TX	79311
12	Don & Dianna Stone	HCE1271	6 24	Hale	1760 CR 275	Abernathy	TX	79311
13	G D Clapp et al (Martha Loper), c/o Mark Clapp	HCE2188	25 10	Hale	5022 Fannin St	Amarillo	TX	79110
14	Y F Snodgrass	HCE1688	7 03	Hale	6410 Erskine St	Lubbock	TX	79416
15	Teresa Jackson	HCE2451	17.88	Hale	12203 Norwood Avenue	Lubbock	TX	79423
16	Charles Scarborough, c/o Southwest Bank	HCE2493 HCE2497	18 14	Hale	P O Box 65269	Lubbock	TX	79464
17	Mrs. Arthur Lou Rokohl	HCE2524	18 16	Hale	P O Box 237	Ingleside	TX	78362
18	Harlan Brothers Land Inc	HCE2403	5 63	Hale	166 W Garza St	Slaton	TX	79364
19	McLaughlin Mary Ann #2, c/o Hale County State Bank Trust	HCE1760	11 85	Hale	1145 Junction Hwy	Kerrville	TX	78028
20	Drake Trust Under Will A Sharp, c/o Centennial Bank	HCE2638	18 71	Hale	1145 Junction Hwy	Kerrville	TX	78028
21	Floyd & Virginia Ellison	HCE2263	6 47	Hale	1402 E 5th Street	Petersburg	TX	79250

No habitable structures are located within 300 feet of proposed route

Docket No. 48253

Hale Wind Interconnect CCN

Hale Wind Notice Map



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

VIA FIRST CLASS MAIL

«Utility»
«Address_1»
«City», «State» «Zip»

Dear Utility,

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission's approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

The Proposed Project will involve the construction of a new 230-kV transmission line, which will originate at the existing TUCO Substation, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54, in Hale County, Texas. The Proposed Project will terminate at the new Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275, in Hale County, Texas.

The Southwest Power Pool identified the proposed transmission line as a requirement of a Generator Interconnection Agreement. The Proposed Project is needed for the generation from the Hale Wind Project to be accessible to SPS's customers and the SPP Integrated Marketplace.

The proposed 230-kV transmission line will be constructed utilizing primarily single-circuit, concrete monopole structures, which require a smaller surface area than H-frame structures. Angle structures will be either guyed concrete monopoles or self-supporting concrete monopoles. The proposed transmission line will be constructed entirely on new right-of-way ("ROW") with a proposed easement width of 150 feet. In some circumstances, a wider or more narrow easement may be necessary, but these locations and easement widths cannot be determined until the route is approved by the Commission and surveyed.

SPS is proposing one route with a total cost is \$9,441,644 consisting of \$9,317,470 for transmission facilities and \$124,174 for substation facilities.

Enclosed are a copy of a written description of the proposed route and a map of the proposed project. A copy of the complete application, which includes larger, more detailed map, is available for review at SPS's offices at 790 Buchanan Street, 4th floor, Amarillo, Texas 79101. The complete application is also available for review on the PUC's website at www.puc.state.tx.us, by using the PUC's filing retrieval system and the Docket No. assigned to the application. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at <http://www.powerfortheplains.com>.

Persons who wish to intervene in the docket or comment on the application should mail the original and 10 copies of their requests to intervene or comments to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

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The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are available from Bryant Coon at 806-378-2757 or James Bagley at 806-378-2868 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing- and speech-impaired individuals with text telephones ("TTY") may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

If you have any questions or need additional information, please call Bryan Coon or James Bagley.

Sincerely,



Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

**Hale County Interconnect
D48253
Utilities Notice List**

	Contact_	Utility_	Address_1	Address_2	City_	State_	Zip_
1	Mark W. Schwartz President and General Manager	Golden Spread Electric Cooperative, Inc.	P.O. Box 9898		Amarillo	TX	79105
2	Greg Boggs Vice President	Sharyland Utilities	1031 Andrews Highway	Suite 400	Midland	TX	79701
3	Vicki Oswalt VP Regulatory	Sharyland Utilities	600 Congress	Suite 2000	Austin	TX	79701
4	Albert Daniel General Manager	Lighthouse Electric Cooperative	P O Box 600	703 W US Highway 70	Floydada	TX	79235

ATTACHMENT 10 CITY NOTIFICATION LETTERS



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

VIA FIRST CLASS MAIL

«Mayor»
«Address_1»
«City», «State» «Zip»

Dear Mayor:

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission's approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

The Proposed Project will involve the construction of a new 230-kV transmission line, which will originate at the existing TUCO Substation, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54, in Hale County, Texas. The Proposed Project will terminate at the new Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275, in Hale County, Texas.

The Southwest Power Pool identified the proposed transmission line as a requirement of a Generator Interconnection Agreement. The Proposed Project is needed for the generation from the Hale Wind Project to be accessible to SPS's customers and the SPP Integrated Marketplace.

The proposed 230-kV transmission line will be constructed utilizing primarily single-circuit, concrete monopole structures, which require a smaller surface area than H-frame structures. Angle structures will be either guyed concrete monopoles or self-supporting concrete monopoles. The proposed transmission line will be constructed entirely on new right-of-way ("ROW") with a proposed easement width of 150 feet. In some circumstances, a wider or more narrow easement

may be necessary, but these locations and easement widths cannot be determined until the route is approved by the Commission and surveyed.

SPS is proposing one route with a total cost of \$9,441,644 consisting of \$9,317,470 for transmission facilities and \$124,174 for substation facilities.

Enclosed are a copy of a written description of the proposed route and a map of the proposed project. A copy of the complete application, which includes larger, more detailed map, is available for review at SPS's offices at 790 Buchanan Street, 4th floor, Amarillo, Texas 79101. The complete application is also available for review on the PUC's website at www.puc.state.tx.us, by using the PUC's filing retrieval system and the Docket No. assigned to the application. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at <http://www.powerfortheplains.com>.

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Austin, Texas 78711-3326

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Sincerely,



Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

ATTACHMENT 10

COUNTY NOTIFICATION

LETTERS



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

VIA FIRST CLASS MAIL

«Judge»
«Address_1»
«City», «State» «Zip»

Dear Judge:

Southwestern Public Service Company (“SPS”), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity (“CCN”) in order to construct and operate a single circuit, 230-kilovolt (“kV”) electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas (“Proposed Project”). SPS has filed an application with the Public Utility Commission of Texas (“Commission” or “PUC”) (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission’s approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt (“MW”) wind generation plant and associated facilities (“Hale Wind Project”). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

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Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

**Hale Wind Interconnect CCN
D58253
City/County Notification List**

	First_Name	Last_Name	Job_Title	City_1	Address_1	Address_2	City	State	Zip
1	Sharon	Kester-Fair	Mayor	City of Abernathy	811 Avenue D	P O Box 310	Abernathy	TX	79311
2	W.H	Johnson	Mayor	City of Hale Center	702 Main Street	P O Box 532	Hale Center	TX	79041-0532
3	Susie	Martinez	Mayor	City of Petersburg		P O Box 326	Petersburg	TX	79250-0326
4	Bill	Coleman	Judge	Hale County	500 Broadway, Room 200		Plainview	TX	79072

*Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line within Hale County, Texas
(Hale Wind Interconnection)*

PUBLIC UTILITY COMMISSION OF TEXAS DOCKET NO. 48253

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Persons with questions about the transmission line may contact Bryant Coon at 806-378-2757 or James Bagley at 806-378-2868. This notice contains a copy of a written description of the segment used in the proposed routes and a map of the proposed project. A copy of the complete application, which includes larger, more detailed maps, is available for review at SPS's offices at 790 Buchanan Street, 4th floor, Amarillo, Texas 79101. The complete application is also available for review on the PUC's website at www.puc.state.tx.us by using the PUC's filing retrieval system and the Docket No. assigned to the application. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at <http://www.powerfortheplains.com>.

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Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

Persons who wish to intervene in the docket must also mail a copy of their request for intervention to all parties in the docket and all persons that have pending motions to intervene, at or before the time the request for intervention is mailed to the PUC. ***The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene in the docket. It is important for an affected person to intervene because the utility is not obligated to keep affected persons informed of the PUC's proceedings and cannot predict which route(s) may or may not be approved by the PUC.***

The deadline for intervention in the proceeding is July 9, 2018, and a letter requesting intervention should be received by the Commission by that date.

The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are available from Bryant Coon at 806-378-2757 or James Bagley at 806-378-2868 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing- and speech-impaired individuals with text telephones ("TTY") may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

**Xcel Energy Inc.
Hale Wind Interconnection Project
230-kV Transmission Line
Hale County, Texas**

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy has filed an application with the Public Utility Commission of Texas (PUC) to amend its Certificate of Convenience and Necessity (CCN) to construct the new Hale Wind Interconnection Project 230-kV transmission line. A detailed description of the proposed route is below.

PROPOSED ROUTE DESCRIPTION

The route begins at the western edge of the existing TUCO substation in Section 9, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54.

The route departs from the western edge of the existing TUCO Substation and runs overhead in a westerly direction for approximately 175 feet, crossing the existing Burlington Northern Santa Fe (BNSF) Railroad. The route then turns north and runs underground for approximately 750 feet, parallel to the existing BNSF Railroad, crossing beneath an existing 69-kV transmission line, an existing 115-kV transmission line, and two existing 230-kV transmission lines, then returns to an overhead configuration and continues in a northerly direction for approximately 2.38 miles, parallel to the existing BNSF Railroad, crossing FM 54, then an existing 69-kV transmission line, and then County Road (CR) 901. The route then turns east at Section 69 for approximately 0.57 mile parallel to the north side of CR 901, immediately crossing the BNSF Railroad and then crossing an existing 69-kV transmission line and CR 663. The route then turns north at Section 68 for 0.97 miles, parallel to the east side of CR 663 and crossing CR 275. After crossing CR 275, the route then immediately turns east at Section 67 for 3.04 miles parallel to the north side of CR 275, crossing an existing 230-kV transmission line, CR 857, CR 665 and CR 828. The route then turns north at Section 3 for 0.94 mile parallel to the east side of CR 828. The route then turns east at Section 3 for 6.39 miles parallel to the south side of CR 613, crossing and then paralleling the south side of an existing 345-kV transmission line, crossing CR 814, CR 684, and FM 400.

The route terminates in Section 45 at the new Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275.

Newspaper Listing:

Plainview Herald
Carmen Ortega
820 Broadway
Plainview, TX 79072
(806) 296-1320



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

Julie Wicker
Wildlife Habitat Assessment Program
Wildlife Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Wicker:

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the existing Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission's approval of the Proposed Project. The existing Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

The Proposed Project will involve the construction of a new 230-kV transmission line, which will originate at the existing TUCO Substation, located approximately 0.8 mile southeast from the intersection of Interstate 27 and FM 54, in Hale County, Texas. The Proposed Project will terminate at the existing Hale Wind Collection Substation approximately 1.7 miles northeast of the intersection of FM 400 and County Road 275, in Hale County, Texas.

The Southwest Power Pool identified the proposed transmission line as a requirement of a Generator Interconnection Agreement. The Proposed Project is needed for the generation from the Hale Wind Project to be accessible to SPS's customers and the SPP Integrated Marketplace.

The proposed 230-kV transmission line will be constructed utilizing primarily single-circuit, concrete monopole structures, which require a smaller surface area than H-frame structures. Angle structures will be either guyed concrete monopoles or self-supporting concrete monopoles. The proposed transmission line will be constructed entirely on new right-of-way ("ROW") with a proposed easement width of 150 feet. In some circumstances, a wider or more narrow easement

may be necessary, but these locations and easement widths cannot be determined until the route is approved by the Commission and surveyed.

SPS is proposing one route with a total cost is \$9,441,644 consisting of \$9,317,470 for transmission facilities and \$124,174 for substation facilities.

Enclosed are a copy of a written description of the proposed route and a map of the proposed project. A copy of the complete application, which includes larger, more detailed map, is available for review at SPS's offices at 790 Buchanan Street, 4th floor, Amarillo, Texas 79101. The complete application is also available for review on the PUC's website at www.puc.state.tx.us. by using the PUC's filing retrieval system and the Docket No. assigned to the application. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at <http://www.powerfortheplains.com>.

Persons who wish to intervene in the docket or comment on the application should mail the original and 10 copies of their requests to intervene or comments to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

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If you have any questions or need additional information, please call Bryan Coon at 806-378-2757 or James Bagley at 806-378-2868.

Sincerely,



Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures



Siting and Land Rights

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

Michele Gregg
Office of Public Utility Counsel
P.O. Box 12397
Austin, TX 78711-2397

Dear Ms. Gregg:

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- *Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)***) and is requesting the Commission's approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

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If you have any questions or need additional information, please call Bryan Coon or James Bagley.

Sincerely,



Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

**Siting and Land Rights**

790 South Buchanan Street
Amarillo, TX 79101
Telephone: 806-378-2757
Facsimile: 806-378-2724

May 25, 2018

DOD Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 20301-3400

Dear Department of Defense:

Southwestern Public Service Company ("SPS"), a subsidiary of Xcel Energy Inc., is providing notice of its application to amend its Certificate of Convenience and Necessity ("CCN") in order to construct and operate a single circuit, 230-kilovolt ("kV") electric transmission line between the existing TUCO Substation and the new Hale Wind Collection Substation, both located in Hale County, Texas ("Proposed Project"). SPS has filed an application with the Public Utility Commission of Texas ("Commission" or "PUC") (**Docket No. 48253- Application of Southwestern Public Service Company to Amend A Certificate of Convenience and Necessity for A Proposed 230-kV Transmission Line Within Hale County (Hale Wind Interconnection)**) and is requesting the Commission's approval of the Proposed Project. The new Hale Wind Collection Substation will serve a 478 megawatt ("MW") wind generation plant and associated facilities ("Hale Wind Project"). The Proposed Project is required to interconnect the Hale Wind Project to the SPS system.

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